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# **THE AGRICULTURAL SITUATION in 1961-62**

## **in the SOVIET UNION and other EASTERN EUROPEAN COUNTRIES**

**U.S. DEPARTMENT OF AGRICULTURE**  
**Regional Analysis Division**  
**Economic Research Service**

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THE AGRICULTURAL SITUATION IN 1961-62 IN THE  
SOVIET UNION AND OTHER EASTERN EUROPEAN COUNTRIES

By Staff of East European Analysis Branch  
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SUMMARY

The last year brought another disappointment to agricultural planners in the Soviet Union and most other Eastern European countries. Agricultural output declined or fell short of the high official goals. Serious food shortages developed in many of these countries, especially in animal products. Unfavorable weather aggravated the lack of incentives, shortage of capital and other shortcomings resulting from collectivization and government policy of preferential treatment to industry. Yet, in a number of countries, collectivization was further extended in 1961. In Poland and Yugoslavia, however, where private farming had largely replaced collective agriculture, it has continued to be the dominant form with beneficial results.

Prices paid to farmers for certain commodities were increased in the Soviet Union and some other East European countries, but inauspicious prospects for the 1962 harvest make it unlikely that the agricultural and food difficulties will be overcome soon.

Soviet Union -- Soviet agriculture is again in the public spotlight because 1961 was the third successive disappointing year to the Kremlin. Instead of the planned large increase in agricultural production only a small gain was achieved. Unfavorable weather combined with institutional and managerial shortcomings of the collective and state farm system, and inadequate agricultural capital investment and economic incentives to the farmers, were responsible for the agricultural stagnation. It is in marked contrast to the large industrial growth, particularly of heavy industry, which continues to be favored by Soviet economic policy. The food situation has not been critical. However, instead of an improvement in the starchy Russian diet, which has been promised frequently, shortages of animal products, particularly meat, were officially acknowledged. The continued stagnation of Soviet agriculture was the subject of numerous conferences and speeches by Khrushchev and other high Soviet officials in 1961-62 and various remedial measures were adopted. The program emphasized: (1) a reorganization and tightening of the administrative apparatus supervising both collective and state farms through the establishment of new local agencies of control; (2) a shift in the crop patterns from forage legumes (clover, alfalfa), grasses, and summer fallow to more intensive feed crops (corn, sugarbeets, and pulses) which raise some difficult problems; and (3) an increase in the prices paid by the state to the farmers and in turn by consumers for livestock products to bring them into better relationship with costs.



Poland -- Agricultural production in 1961 maintained the growth pattern established in recent years. Major reasons for this trend are the decollectivization in 1956 and return largely to owner-operated farming, increased mechanization, and fertilization, and U.S. assistance to Poland since 1957. This increased production has resulted in increased agricultural sales, mainly animal products, to hard currency markets enabling Poland to purchase needed industrial equipment as well as ease its perennially unfavorable trade balance.

Czechoslovakia -- Despite increased mechanization and fertilization, agricultural output in Czechoslovakia remains below the prewar average. Total grain production in 1961 was below that of 1960 due to delays in spring plantings occasioned by wet weather. Inefficient management of the large state and collective farms has aggravated the effects of a farm labor shortage in post-war years. The outlook is for continued stagnation in agricultural output. A decrease in animal products output is likely if current policies calling for elimination of the private plots of collective members are intensified. Recent centralization of control over deliveries and inclusion of the smallest land holders in the delivery quota system is likely to further discourage agricultural production although increasing somewhat deliveries to the state. Czechoslovakia will continue to depend heavily on agricultural imports to meet its domestic needs.

East Germany -- Agricultural production in East Germany has declined since 1959, primarily because of the rapid collectivization of agriculture and the flight of skilled farmworkers. Unfavorable weather aggravated the situation in 1961. A tight food situation developed that year and has become more acute in 1962, with little likelihood of immediate improvement, despite prospects of a better harvest in 1962. The government has ordered a reorganization of the agricultural administration modeled after the Soviet system.

Hungary -- Agricultural output in 1961-62 was about the same as in 1960-61, approximately 9 percent below the record year of 1959-60. A late drought resulted in significant decreases in the production of corn, sugarbeets, potatoes, and late vegetables. Collectivization was resumed in 1958, and over 90 percent of the arable area is in the socialist sector. Migration of farm labor to urban areas continues to be a problem. The regime is increasing emphasis on material incentives to stimulate agricultural production.

Shortages of potatoes, rice, vegetables, eggs, and cheese developed during the winter months of 1961-62. Available information points to some decrease in exports of agricultural commodities. The planned increase in agricultural production in 1962 has been raised from 5 to 10 percent because of shortfalls in 1961.

Rumania -- Agricultural production in 1961-62 was about 10 percent below 1960-61 due to a late summer drought which cut yields of most spring planted crops. While wheat production was up 9 percent, corn production is estimated 9 percent below the previous year.

With over 90 percent of the arable area in the socialist sector, major changes in both administrative and production units were effected through governmental action. The Ministry of Agriculture was abolished and the Higher Council of Agriculture established. The size of collective farms increased through mergers. Also a back-to-the-farm movement was initiated in an attempt to get more technicians on the farm.

Bulgaria -- Collectivization of agriculture has been virtually completed and the collectives are, for the most part, consolidated into larger units. The planned targets for agricultural production, however, have not been attained and production declined in 1961. Serious food shortages developed in 1961 and 1962. Collectivization difficulties, aggravated by unfavorable weather, were responsible for the low level of agricultural production. Government plans for agriculture are still ambitious. A major readjustment in price relationships, more favorable to agriculture, was decreed at the end of July 1962. Bulgaria has long been an exporter of agricultural products, though the proportion of such agricultural commodities in total exports has greatly decreased with industrial expansion. But during recent years, wheat -- normally exported -- has had to be imported. Bulgaria's principal trading partners, at present, are the Communist countries. Trade with the United States is negligible.

Yugoslavia -- Agricultural output in Yugoslavia during 1961-62 was about 10 percent below that of 1960-61 because of an early spring drought and a prolonged drought from July to October which affected most crops. Tobacco, corn, and wheat production in 1961 were below 1960 by 50, 35, and 11 percent, respectively. Shortages of feed stuffs led to increased livestock slaughter. Hog numbers were the lowest since 1957.

To encourage production, the government increased the average level of purchase prices for farm products 34.5 percent above 1960. However, other inducements such as price premiums and input subsidies apply only to the socialist sector which controls 11 percent of the arable area. Government officials have indicated that action will be taken to increase the size of the socialist sector and the degree of collaboration between cooperatives and private peasants. The primary target appears to be the part-time farmers who reportedly hold 35 percent of total arable land.

Exports of agricultural commodities in 1961 remained steady while imports jumped 32 percent above 1960. Imports under Title I of P.L. 480 accounted for about half of the 1961 total, as compared to about one-fourth in 1960. Imports of wheat and cotton accounted for over 50 percent of 1961 agricultural imports. The principal exports continued to be meat, live cattle, corn, and tobacco. However, because of feed shortages, corn exports were down 7 percent.

Production

The Soviet planners had a third successive disappointing year in agriculture, in contrast to the large increases called for by the 7-year plan 1958-65.<sup>1/</sup> Unfavorable weather continued to be a serious limiting factor in agricultural production, aggravating the shortcomings of the collective farm system.

The total area sown to crops in 1961 increased slightly, from 502 million to 506 million acres. Since 1953, when the post-Stalin era began, the crop area has increased by 118 million acres, mostly through expansion on marginal land in the eastern regions beyond the Volga and the Urals. In 1961, increases were reported in acreages planted to wheat, barley, corn for grain (both mature and in the milk-wax stage), pulses, sunflower seed, sugarbeets, and cotton. Acreages planted to corn for silage and green feed, oats, potatoes, and forage crops decreased.

The wintering of the fall-sown grains, wheat and rye, in 1961, unlike 1960, took place without reported abnormal losses. Reportedly good yields of winter wheat and rye were obtained in 1961, particularly over a large part of the Ukraine and central regions of European Russia.

An early spring in many regions made possible rapid sowings of spring crops. However, a serious prolonged drought developed in many of the eastern "new lands" where spring grains, mainly wheat, predominate. A summer drought in the southern and southeastern regions of the European USSR, including a considerable part of the Ukraine and North Caucasus, reduced the yield of spring grains and other spring-sown crops.

A shortage of irrigation water was experienced in 1961 in the cotton producing regions of Soviet Central Asia. Officially reported 1961 cotton yields were about the same as in 1960 but considerably below the record year of 1959.

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<sup>1/</sup> U.S. Department of Agriculture index numbers of Soviet net agricultural output for the years 1959, 1960, and 1961 (1958=100) were 93, 91, and 94, respectively. These are based on Soviet production figures, adjusted roughly for probable overestimation. They exclude seed, animal feed, and waste, which are roughly estimated. The official Soviet index numbers of gross agricultural output for the same years, calculated on a 1958 base, were 100.5, 102.8, and 105.0. The 1958-65 plan calls for an 8-percent annual increase in gross agricultural production.



Because of the increase in acreage, cotton production increased 2.9 percent over that in 1960 (table 1).

Overestimation of official crop data is indicated. Apparently this has assumed serious dimensions and throws considerable doubt on the reliability of published statistical data. A campaign has been waged by the government and the Soviet press against falsification, or hoodwinking, in statistical reporting. Another factor which tends to inflate the grain figures is the inclusion of a high proportion of weeds, other dockage, and moisture in the crop, especially in the eastern "new lands." In view of the above considerations, it seems prudent to scale down the reported official figures. These usable production estimates must be considered in the nature of informed guesses, subject to a margin of error, which is believed to be smaller, however, than in the official figures.

A substantial increase in 1961 over the previous year was officially reported for total cattle and hog numbers and a smaller increase for cows. The increase in livestock numbers was reported not only in the socialized sector but also in the private sector, which in 1960 showed a decline compared to 1959. The share of the collective sector in the livestock numbers has continued an upward trend (table 2). The large rates of growth during a mediocre crop year throw some doubt on the reliability of livestock figures. However, it should be borne in mind in this connection that government policy discourages slaughtering even when the feed situation is unfavorable.

#### Procurements and Foreign Trade

Statistics of government procurements (purchases at stipulated prices) of farm products are next in importance to those of production. They indicate the supplies available for feeding the rapidly growing nonagricultural population, as well as for emergency stockpiling and exports. In the past, these figures were considered more accurate than official Soviet production statistics, but recent disclosures indicate also considerable doctoring of procurement data. Procurements of grains in 1961 were reported at 52.1 million metric tons, 11 percent above 1960 procurements, but considerably below the official 1961 goal of 59.7 to 63 million tons. The Ukraine made a large contribution to the grain procurements in 1961 by delivering 12.8 million tons of grain as against only 5.9 million in 1960. This situation reflected good crops, especially of winter grains, in the Ukraine. By contrast, procurements in Kazakhstan and other new lands lagged considerably.

Larger procurements were reported for a number of other crops and livestock products but meat procurements decreased (table 3). (Note that increased procurements do not necessarily indicate increased production). Instead of basing procuring quotas on the delivery of stipulated quantities per unit of land, the government decreed the return to the principle of so-called contracting with the collective and state farms for a period of 2 to 5 years. The planned requirements of the state and the production capacity of the farms are taken into account. The contracts are subject to an annual review. Advances to farms for procurements were increased. The government also decided to reintroduce grain procurements in the northern and western regions of mixed farming where they were abandoned only a short time ago.

Table 1. -- Farm production in the Soviet Union: Acreage and production of principal crops, number of livestock, and output of animal products, average 1955-57, annual 1958-61<sup>1/</sup>

Commodity	: 1955-57 average :			: 1958 :			: 1959 :			: 1960 :			: 1961 <sup>2/</sup> :		
	Area	Production	Area	Area	Production	Area	Area	Production	Area	Area	Production	Area	Area	Production	Area
	Million acres	Million bushels	Million acres	Million bushels	Million acres	Million bushels	Million acres	Million bushels	Million acres	Million bushels	Million acres	Million bushels	Million acres	Million bushels	Million acres
Wheat . . . . .	158.0	3/1,783	165.0	3/2,300	157.0	3/1,900	148.5	3/1,700	155.0	3/1,700	155.0	3/1,900	155.0	3/1,900	155.0
Rye . . . . .	46.0	3/642	43.5	3/650	42.2	3/600	40.0	3/520	42.0	3/520	42.0	3/600	42.0	3/600	42.0
Barley . . . . .	26.0	3/458	23.5	3/440	23.7	3/380	30.0	3/525	28.5	3/525	28.5	3/500	28.5	3/500	28.5
Oats . . . . .	36.2	3/858	36.6	3/900	35.4	3/750	31.5	3/750	27.2	3/750	27.2	3/600	27.2	3/600	27.2
Corn . . . . .	7.9	3/354	10.9	3/325	8.8	3/175	12.5	3/300	17.0	3/300	17.0	3/500	17.0	3/500	17.0
		1,000 short tons		1,000 short tons		1,000 short tons		1,000 short tons		1,000 short tons		1,000 short tons		1,000 short tons	
Potatoes . . . . .	23.1	93,900	23.5	95,400	23.6	95,400	22.5	93,000	22.5	93,000	22.5	93,000	22.5	93,000	22.5
Sugarbeets . . . . .	4.8	37,922	6.2	59,956	6.8	48,437	7.5	63,634	7.8	63,634	7.8	52,910	7.8	52,910	7.8
Sunflower seed . . . . .	10.0	3,873	9.7	5,099	9.6	3,328	10.4	4,373	10.5	4,373	10.5	4,400	10.5	4,400	10.5
		1,000 bales		1,000 bales		1,000 bales		1,000 bales		1,000 bales		1,000 bales		1,000 bales	
Cotton . . . . .	5.2	3/6,465	5.3	3/6,777	5.3	3/7,300	5.4	3/6,800	5.6	3/6,800	5.6	3/7,000	5.6	3/7,000	5.6
Livestock (Dec. 31):		Million head		Million head		Million head		Million head		Million head		Million head		Million head	
Number:															
Cattle . . . . .	---	62.3	---	70.8	---	74.2	---	75.8	---	75.8	---	82.1	---	82.1	---
Hogs . . . . .	---	39.7	---	48.7	---	53.4	---	58.7	---	58.7	---	66.6	---	66.6	---
Sheep . . . . .	---	110.6	---	129.9	---	136.1	---	133.0	---	133.0	---	137.4	---	137.4	---
Production:		Million pounds		Million pounds		Million pounds		Million pounds		Million pounds		Million pounds		Million pounds	
Red meat	---	10,280	---	12,240	---	13,650	---	13,550	---	13,550	---	13,500	---	13,500	---
(carcass wt.) <sup>4/</sup>															
Poultry . . . . .	---	1,150	---	1,320	---	1,610	---	1,764	---	1,764	---	1,984	---	1,984	---
Milk . . . . .	---	5/	---	110,000	---	113,315	---	112,500	---	112,500	---	113,000	---	113,000	---

<sup>1/</sup> Official Soviet data for acreages, livestock numbers and production unless otherwise indicated. <sup>2/</sup> Preliminary.  
<sup>3/</sup> USDA tentative estimates. <sup>4/</sup> Beef, veal, pork, mutton, lamb, and goat. <sup>5/</sup> Not available.

Table 2. -- Livestock in the Soviet Union: Total number and number socialized, January 1, specified years 1953-65

Year and category	Total cattle	Cows	Hogs	Sheep	Goats
	Million	Million	Million	Million	Million
1953:					
Total.....	56.6	24.3	28.5	94.3	15.6
Socialized.....	34.5	9.9	20.1	82.1	5.5
1959:					
Total.....	70.8	33.3	48.7	129.9	9.3
Socialized.....	41.3	14.7	33.1	100.8	1.5
1960:					
Total.....	74.2	33.9	53.4	136.1	7.9
Socialized.....	48.4	16.7	38.4	106.5	1.5
1961:					
Total.....	75.8	34.8	58.7	133.0	7.3
Socialized.....	52.0	18.4	42.2	104.2	1.3
1962:					
Total.....	82.1	36.3	66.6	137.4	7.0
Socialized.....	58.2	20.0	49.3	1/109.1	2/
1965 (Plan).....	109.0	49.0	2/	189.0	2/

1/ Sheep and goats. 2/ Not available.

Official Soviet sources.

Table 3. -- Government procurements of agricultural products: Quantities of specified products, Soviet Union, average 1955-57, annual 1958-61

Commodity	Average 1955-57	1958	1959	1960	1961
	- - - <u>Million short tons</u> - - -				
Grain.....	46.7	62.4	51.4	51.5	57.4
Cotton, raw.....	4.56	4.78	5.11	4.73	4.96
Sugarbeets.....	37.0	56.2	45.6	57.5	52.6
Sunflower seed.....	2.4	2.9	2.1	2.5	3.2
Potatoes.....	8.5	7.7	7.5	7.8	7.7
Vegetables.....	4.4	4.6	5.0	5.6	6.1
Meat: 1/					
Liveweight.....	5.03	6.24	8.28	8.69	8.0
Carcass weight.....	2/	3.7	5.1	5.3	4.8
Milk.....	18.8	24.4	27.6	29.0	31.2
	- - - <u>Millions</u> - - -				
Eggs.....	3,461	4,536	5,662	6,452	7,376

1/ Including poultry. 2/ Not available.

Official Soviet sources.



Wheat exports decreased from a peak of 6.1 million metric tons in 1959 to 5.6 million tons in 1960, the last year for which complete data are available. By contrast, rye and barley exports increased in 1960. Also more cotton was exported (table 4). In 1961 the Soviet Union did not import significant quantities of agricultural products from Communist China as in previous years. In fact, these imports declined in 1960 as shown by the following data:

	1959	1960
	<u>1,000 metric tons</u>	
Meat and meat products.....	82.5	38.6
Soybeans.....	638.9	351.0
Other oilseeds.....	65.7	43.8
Vegetable oils.....	64.3	29.4
Tea.....	17.3	10.2
Rice.....	658.4	415.6
Wheat.....	48.0	47.6
Cotton.....	71.5	46.9
Wool.....	13.0	11.1
Tobacco.....	36.3	15.1

### Policy

The year 1961 and the first half of 1962 continued to be an active period in the development of agricultural policy. It began with the plenary meeting of the Central Committee of the Communist Party in Moscow in January 1961 to review the agricultural situation. A series of regional conferences and another plenary meeting of the Central Committee in March of this year followed. Most of these conferences were attended by Prime Minister N.S. Khrushchev, who delivered lengthy speeches criticizing the setbacks and failure of agriculture to fulfill the high goals set by the government. Unfavorable weather was barely mentioned as a cause of agricultural failure; Khrushchev and other officials placed most of the blame on farm management and agricultural leadership. Inadequate input of resources, such as farm machinery, fertilizer, herbicides, and irrigation and especially their inefficient use received considerable attention.

Among the remedial measures proposed by the Khrushchev administration, emphasis was placed on reorganizing the government administration of Soviet agriculture. During 1961, this reorganization continued the trend of recent years along the lines of decentralizing and scattering the different functions among various agencies. Thus the Ministry of Agriculture of the USSR was shorn completely of its operational supervising and planning functions. These functions were transferred to Gosplan (the State Planning Committee), the Ministries of Agriculture of the 15 constituent republics of the Soviet Union, and other agencies. The Ministry of Agriculture of the USSR was made responsible primarily for research, for informational action pertaining to it, and for collegiate and secondary agricultural education. In December 1960 the Minister of Agriculture, V. V. Matskevitch, was removed from a post that he had held for a number of years and was replaced by M. A. Ol'shanski. K. P. Pysin replaced Ol'shanski in April 1962.



Table 4.--Agricultural imports and exports: Quantities of principal commodities, Soviet Union, 1958, 1959, and 1960

Commodity	(1,000 metric tons)					
	1958		1959		1960	
	Imports	Exports	Imports	Exports	Imports	Exports
Wheat, total.....	323.3	3,878.7	246.9	6,052.0	98.0	5,638.9
Bloc.....	40.2	2,836.5	48.0	4,365.3	98.0	4,236.4
Nonbloc.....	283.1	1,021.3	198.9	1,682.7	---	1,366.3
Undistributed.....	---	20.9	---	4.0	---	36.2
Rye, total.....	---	461.0	---	548.9	---	689.5
Bloc.....	---	341.1	---	371.4	---	520.9
Nonbloc.....	---	108.9	---	172.7	---	155.9
Undistributed.....	---	11.0	---	4.8	---	12.7
Barley, total.....	176.4	278.3	1.0	121.6	21.9	325.0
Bloc.....	---	144.7	---	25.4	0.8	145.4
Nonbloc.....	176.4	133.6	1.0	96.2	21.1	179.6
Undistributed.....	---	---	---	---	---	---
Oats, total.....	20.2	261.1	8.5	131.4	3.2	41.5
Bloc.....	---	137.2	8.5	50.1	3.2	16.0
Nonbloc.....	20.2	123.9	---	81.3	---	24.6
Undistributed.....	---	-	---	---	---	.9
Corn, total.....	261.5	220.5	---	154.9	117.2	123.1
Bloc.....	211.6	208.4	---	53.0	103.0	48.6
Nonbloc.....	49.9	12.1	---	101.9	14.2	74.1
Undistributed.....	---	---	---	---	---	.4
Oilseeds.....	551.7	47.1	715.2	83.3	418.5	110.4
Soybeans.....	478.4	---	638.9	---	351.0	---
Sunflower seed.....	---	46.1	---	61.8	---	73.9
Vegetable oils.....	73.3	52.2	71.6	82.5	59.3	91.8
Meat and meat products....	156.6	35.3	112.8	179.0	66.9	78.1
Butter.....	25.2	24.7	13.6	80.3	4.0	37.2
Sugar refined.....	181.0	200.4	186.1	197.2	229.5	242.9
Tobacco, raw.....	84.3	6.2	96.6	7.1	74.2	1.6
Cotton, total.....	142.1	310.9	190.3	344.5	193.1	390.9
Bloc.....	---	275.1	1/ 71.5	269.2	1/ 46.9	303.1
Nonbloc.....	142.1	35.8	118.8	75.3	146.2	87.4
Undistributed.....	---	---	---	---	---	.4
Flax fiber.....	---	29.7	---	41.8	---	29.2
Wool, washed.....	55.2	17.0	57.8	16.9	61.5	18.0

1/ From Communist China.

Official Soviet sources.

Two new agencies were created in 1961 directly under the Council of Ministers. They were: (1) the Soyuzsel'khoztekhnika to assume the responsibility of supplying agriculture with production needs, such as machinery, fertilizer, spare parts, and fuel for tractors; and (2) a new State Committee on Procurements to direct the government acquisition of farm products. Its local arm was a State Procurement Inspection endowed with wide powers of supervision over collective and state farms. Furthermore, the administration of the increasingly important state farms sector was also decentralized.

In March 1962, however, the trend towards decentralization and multiplicity of local government agencies dealing with agriculture was reversed. Khrushchev and other speakers at the plenary meeting complained that it was impossible to pinpoint those responsible for directing agriculture. They maintained that agriculture needs continuous supervision by the party-state. The liquidation in 1958 of machine-tractor stations, important organs of government control of collective agriculture, appears to have left a serious gap in the farm administrative system.

A new organizational scheme for integrated administration of agriculture, therefore, was adopted by the government. Its lowest link is territorial or interraion administration (a raion roughly corresponds to a county in the United States), with wide supervisory functions and powers over both collective and state farms, formerly administered separately.

Production as well as procurements are included within the scope of the new supervising agencies. A number of agencies servicing agriculture, such as the raion veterinary centers, seed laboratories, artificial insemination stations, and plant disease and pest-control stations, are placed under the supervision of the production administrations. But the supply agency -- Soyuzsel'khoztekhnika -- will not be controlled by the administrations. Much is made of the increased stature of the new agency, because it will be organized with some exception, on an interraion basis and not merely as a part of the raion administrative apparatus where it would have played a subordinate role. The independent status of the new administration, however, is not recognized by a number of local party and government authorities, as is evident from Khrushchev's sharp admonition in his speech in Moscow on June 27, 1962.

The administration will supervise usually 30 to 60 farms through a staff of inspectors-organizers. Considerable importance is attached to this work. There will also be a Party representative with several assistants (instructors) attached to each administration as political commissars. Each administration will have a council, presided over by its head and consisting of collective and state farm managers and leading local Party and government officials.

The council is to convene approximately once every three months to examine and adopt decisions on main questions concerning the production and procurement of agricultural commodities, the development and strengthening of the economy of collective and state farms, the organization of labor, and the payment of wages.



Proposals worked out by the council will be implemented by the production administration.<sup>2/</sup>

Similar agricultural supervising agencies are organized in each of the provinces (oblast, krai, autonomous republic) and constituent republics. In the republics these bodies are called Ministries of Agricultural Production and Procurements headed by Ministers who combine their duties with those of Deputy Chairmen of the Councils of Ministers. Agricultural committees are also formed in provinces and constituent republics, consisting of high government and Party officials concerned with agriculture and headed by the First Secretary (boss) of the Party Committee. Finally, on the national (federal) scale there is a high-level coordinating committee, headed by the Deputy Chairman of the Council of Ministers of the USSR.

Every effort is being made, therefore, to impart as high a status as possible to the reorganized apparatus administering agriculture. Whether the reshuffling and tightening of the bureaucratic machinery will produce any significant improvement in agricultural production is problematical. Any possible gains may be largely offset by a further decrease of initiative on the part of the collective and state farm management. Lack of initiative at grassroots has been a weak point in the Soviet farm system.

A second prescription for increasing agricultural output stressed by Khrushchev in recent speeches is a radical change in the crop pattern. Specifically, he proposes to reduce greatly the area under forage legumes and grasses (tame hay), oats, and summer fallow, and replant it with more intensive feed crops, such as corn, sugarbeets for feed, and beans. Thus Khrushchev hopes to increase significantly the production of animal feed, which has been a bottleneck in livestock production.

As part of the campaign, he has waged a severe attack against the influential Soviet agronomic school which emphasizes the universal importance of grasses in rotation, irrespective of the natural and economic regional differences. The leading advocate of this system was the Russian soil scientist, V. R. Williams, the son of an American engineer who settled in Russia in the middle of the 19th century. Williams stressed rotation of grasses primarily because of their soil improving quality.<sup>3/</sup> The Stalin regime adopted this system of rotation for the whole country. Shortages of chemical fertilizer made it seem a relatively inexpensive approach to maintaining soil fertility and tilth. At that time, Khrushchev, as the boss of the Ukraine Communist Party, also supported the grasslands system.

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<sup>2/</sup> Government decree of Mar. 22, 1962. Izvestiya, Mar. 25, 1962.

<sup>3/</sup> The introduction of grass rotations into Russian peasant agriculture toward the end of the last century was considered an important mark of progress. This was also true during the 18th and early 19th centuries in western Europe, where it helped to raise appreciably the prevailing low crop yields per acre. This beneficial effect was particularly significant in Russia because of inadequate fertilizer supplies. Clover helped to a considerable extent to offset this deficiency by enriching the soil with nitrogen and by helping to increase the quantity and to improve the quality of barnyard manure.

During the early years of the post-Stalin era, the Kremlin became seriously concerned with the problem of bolstering the lagging animal feed supply. The disadvantage of planting low-yielding grasses in the dry regions was brought out in the open and the spell of Williams' doctrine broken. As Khrushchev pointed out at the time, tame hay (particularly clover), while unsuitable to the semiarid regions, was an appropriate crop for the more humid northern and central regions of podzolic soils. Under Khrushchev's present program, however, the acreage under clover and grasses is to be drastically reduced even in the humid regions. Summer fallow is to be eliminated not only in the humid regions, where it is a survival of the old 3-field system, but also in the semiarid and dry regions where summer fallow was practiced on too limited a scale, especially in the eastern new lands.

In 1961, according to Khrushchev, 89.2 million acres were under forage legumes and grasses and 39.8 million in summer fallow, or a total of 129 million acres. Khrushchev proposes to reduce the area under forage legumes and grasses to 27 million acres, leaving over 100 million acres to be planted to the following crops:

	<u>Million acres</u>
Corn.....	44.5
Peas.....	22.2
Sugarbeets for feed.....	17.3
Field beans.....	17.3
Total.....	101.3

Because of shortages of machinery, fertilizer, and seed, the proposed changes in the crop pattern is scheduled to take place over a period of several years. In 1962, the process began, as the tabulation below shows with increased acreages under corn, pulses (peas and beans) and sugarbeets for feed. Conversely the area under grasses and oats decreased. The need of replanting a considerable acreage of winter killed crops probably helped to expand the corn area. Weather, however, during the summer of 1962 was not favorable to corn and other feed crops in a number of regions.

	1961	1962	Percentage 1962 is of 1961
	<u>Mil. acres</u>	<u>Mil. acres</u>	<u>Percent</u>
Corn for dry grain.....	17.8	24.0	136
Corn for silage and green fodder.....	45.7	67.5	148
Oats.....	28.4	17.8	62
Pulses.....	10.6	20.5	192
Sugarbeets for feed.....	3.2	6.7	209
Grasses (annual).....	41.3	23.7	57
Grasses (perennial).....	45.5	37.6	83

Soviet press, July 21, 1962.



A distinction between the dry and the humid regions should be made when considering the question of summer fallow.<sup>4/</sup> Until recently, the consensus of Russian agronomic thought was in favor of summer fallow in the dry regions, especially in the new lands. The need for this practice is borne out by the experience of similar areas in the United States. Recently, however, the view was propounded by some Soviet agronomist that in the dry regions row crops, such as corn, can largely replace not only hay crops but also summer fallow. Khrushchev has been strongly inclined to this viewpoint. It seems doubtful, however, if any but low yields can be obtained by continuous cropping in these regions, even if row crops are used in rotation. Furthermore, the yields are likely to deteriorate under continuous cropping. Instead of reducing the small summer-fallowed area in the dry regions, it seems that sounder practice would be to increase it. In the humid regions of the northern and central European part of the USSR, however, the situation differs. A considerable proportion of the summer-fallow area here could be planted to crops, provided that adequate supplies of fertilizers and herbicides are available.

The problem is much the same in replacing tame hay in this area. However, unlike summer fallow that is not supposed to produce a crop, the area under grasses, and especially under forage legumes, as clover, would in any event have produced a hay crop.<sup>5/</sup> The question is whether the outturn of corn or other crops, in feed units, would be larger than the replaced hay. This would depend upon yields, and these in turn depend largely on the extent of fertilizing and liming, especially in the area of the less fertile podzolic soils. It should not be overlooked, however, that with increased fertilization yields of grass would also be larger. Thus in the shift to a new crop pattern in the humid regions as proposed by Khrushchev, the crux of the matter is availability of fertilizer. There is also the problem of an adequate supply of farm machinery. As Khrushchev indicated in his speech of March 5, this situation is unfavorable and seriously limits increases in output.

Let us consider briefly the fertilizer and machinery problems. The 7-year plan, 1959-65, called for an increase in production of commercial fertilizer from 12 million to 35 million metric tons, or an increase of 23 million tons. In 1961, after 3 years of operation, the increase was only 2.9 million tons. According to Khrushchev, only 44 percent of the goal for constructing new fertilizer plant capacity during the first 3 years of the present 7-year plan was fulfilled. Despite this deficit, there are reports that a great deal of commercial fertilizer is wasted. Shortage and waste of barnyard manure are also reported. There has been little progress in the production of herbicides. As Khrushchev put it, "... time is passing but there are no herbicides." Although supplies of farm machinery increased substantially, they are inadequate compared with requirements indicated by Khrushchev. As table 5 shows, these

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<sup>4/</sup> By summer fallow is meant arable land tilled but not planted and kept clean for a growing season in order to conserve moisture and control weeds.

<sup>5/</sup> Often the area intended for summer fallow is used as a pasture before being plowed up, and thus contributes to the feed supply. But, if there is a considerable delay in plowing, the value of the summer fallow is likely to diminish.

requirements are considerably more modest than the existing machinery inventories in the United States. Khrushchev summed up the inadequate progress of farm mechanization as follows:

How is it possible to rest on one's laurels if even on state farms, no more than a fourth of the cows are machine milked; if most of the corn grown for grain is harvested by hand; if the harvesting of sugarbeets and potatoes is not mechanized, if loading and unloading operations are little mechanized. We also cannot fail to be concerned over the fact that as compared with 1957, when more attention was given to the problem of mechanization, deliveries of some machines to agriculture have decreased.<sup>6/</sup>

Table 5. -- Specified machines: Number on farms, United States and Soviet Union, 1960 and 1962

Machine	: United States :		U.S.S.R.	
	: Jan. 1, 1962 <sup>1/</sup>	: Jan. 1, 1962	: Requirements <sup>2/</sup>	
	<u>Thousands</u>	<u>Thousands</u>	<u>Thousands</u>	
Tractors.....	4,660	1,168	2,696	
Grain combines.....	1,025	503	845	
Silage harvesters.....	320	121	257	
Trucks.....	2,875	790	1,650	
Tractor trailers.....	3/4,400	292	820	
Tractor-drawn ploughs....	3/3,555	784	1,180	

<sup>1/</sup> USDA preliminary estimates.

<sup>2/</sup> For performance of farm operations during optimum periods.

<sup>3/</sup> Jan. 1, 1957.

USDA and Pravda, Mar. 6, 1962.

Khrushchev also referred to the high cost of purchasing and servicing farm machinery, despite an approximate 40 percent reduction in the price of spare parts in 1961. Yet, poor care of farm machinery is common. For instance, machinery is often left unprotected against the elements through winter. Use of some implements as a source of spare parts has also been reported. Such malpractices were made criminal offenses by a decree of Dec. 29, 1961, punishable by imprisonment or corrective labor.

As far as remedying the shortage of machinery is concerned, Khrushchev's attitude seems to be ambivalent. In his speech at the plenary meeting on Mar. 5, 1962, he appeared to favor increased investment in farm machinery.

<sup>6/</sup> Speech on Mar. 5, 1962, reported in Moscow press on Mar. 6, 1962.



If we should merely appeal to the folks to grow corn and sugarbeets, and to milk cows with machines, but will not provide for the manufacture of corn and sugarbeet combines, milking machines, and other implements, we will be called windbags. One cannot ask for high productivity of labor and hack corn with an axe. (applause).<sup>7/</sup>

To be sure, Khrushchev also condemned inefficient use and poor care of machinery on the farms, but at the same time he was critical of officials who thought that "all questions of mechanization in agriculture were settled and now it is possible even to take something from the farm implement industry for other branches of the economy." Four days later, in his concluding remarks before the same audience, his tone changed. Though he repeated the promise that additional resources will be allocated for agriculture, he emphasized that this will not be done at the expense of the development of industry and of strengthening the defense of the country. The main task, according to Khrushchev, continues to be better utilization of existing technology. No specific program for increasing the supplies of farm machinery, fertilizer and other agricultural requisites was announced in connection with the March 1962 Plenum. However, capital investments in agriculture during the first half of 1962 were 27 percent greater than during the first 6 months of 1961, compared to a planned increase of 22.4 percent for the whole of 1962.

Khrushchev also reaffirmed his aversion to a further price increase as a possible solution to the problem of expanding farm output. The ridiculously low prices paid by the state for agricultural products during the Stalin era were increased considerably after 1953.

On June 1, 1962, a joint appeal to the population by the Central Committee of the Communist Party and the Council of Ministers of the USSR announced drastic price increases for livestock products, which were spelled out in great detail by an accompanying decree of the Council of Ministers. It was a double-edged action affecting not only prices paid by the state for farm deliveries of livestock products but also retail prices charged consumers by state stores. Beginning June 1, 1962, average increases in delivery prices set by the state were 35 percent for livestock and poultry, 10 percent for butter, and 5 percent for cream. Also seasonal lowering of delivery prices for whole milk in the summer was abandoned and higher winter prices were continued. The same prices are paid to members of collectives and others who own livestock individually and sell their produce to the state. But state farms and other state enterprises are paid 10 percent less than collective farms.

Retail prices for meat and meat products in state stores increased an average of 30 percent and butter 25 percent. Price increases for different kinds of meat were set at 31 percent on the average for beef, 34 percent for lamb and mutton, 19 percent for pork, and 31 percent for sausage products. At the same time, the retail price of sugar was reduced 5 percent and rayon goods 20 percent.

The reductions do not gainsay the fact that the consumers will pay for the increased farm prices. This is recognized by the government appeal, which

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<sup>7/</sup> See footnote 6.

examines and rejects the various alternatives to price increases, such as channeling resources from the defense budget or from investments in industry and housing, or reducing payments to collective farm labor. The appeal finally pointed out that even if the government could have found additional funds to increase the prices paid to farmers for the meat and dairy products, by such means as raising the price of vodka, tobacco, and some other commodities, it still would not have been possible to leave the retail prices at their former level. With a shortage of meat, this would have created opportunities for speculation and would have made more difficult an uninterrupted supply of livestock products to cities. Apparently, an immediate restriction in the demand for meat as well as an increase in supply, which will take a longer period of time, was in the Kremlin's mind.

The appeal stressed the high cost of production on the farms, which exceeded the old delivery prices with consequent losses to the collectives. Yet another appeal of the Central Committee and the Council of Ministers to farmers pointed out "that animal husbandry in some collective farms is at present at such a low level and labor expenditures and feed required for production of meat are so high that they are not fully covered even by the new procuring prices."<sup>8/</sup> The appeal, therefore, warns the farm community against relying solely on increased delivery prices. It stresses the need for reducing costs by increasing mechanization, raising labor productivity, and producing cheaper feed.

The increase in farm livestock prices will result in more than 1 billion rubles of additional income to the collective farms, according to Soviet estimates.<sup>9/</sup> This constitutes 7 percent, more or less, of the total cash income of collective farms in 1961. But the proportion will be larger for collective farms with greater concentration on animal husbandry.

Although Khrushchev spoke eloquently about farm mismanagement in its various aspects at the March 1962 Plenum he did not mention the problem of farm giantism, for which he showed a mild disapproval in 1961. The continuing mergers of collective farms or their conversions into state farms reduced the number of collective farms from more than 250,000 in 1950 to a little over 53,000 at the beginning of 1960, and 41,300 at the beginning of 1962. The size of collective farms has enlarged considerably. Thus, the area under crops on a collective farm averaged in 1961 close to 6,600 acres, or 5.4 times more than before World War II. On the average, there were 400 peasant households (families) per collective in 1961 compared with 81 before the war. While collective farms still predominated in 1961 in the sowing of crops, with 273 million acres out of a total of 506 million acres, their acreage and share of the total has declined. By contrast, the number of state farms increased from 4,988 in 1950 to 6,496 at the beginning of 1960 and 8,270 at the beginning of 1962. They are even larger than collective farms, averaging nearly 24,000 acres of sown

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<sup>8/</sup> Sel'skaya Zhizn, June 16, 1962.

<sup>9/</sup> One ruble equals \$1.11 at the Soviet legal rate of exchange. This is an overvaluation by the Soviets.



cropland and 790 workers per farm in 1961. In that year, state farms and other state enterprises had 216 million acres under crops, or 42.7 percent of the total crop area, compared with 45 million acres, or 11.6 percent, in 1953.<sup>10/</sup> Despite this shift, Khrushchev affirmed at the XXII Communist Party Congress the continued coexistence of the collective and state farms for some time to come. Doubtless, the reason for this is that the government assumes complete responsibility for the wage bill and capital investment on state farms; whereas there is no such obligation for collective farms.

A new form of intercollective farm association has developed during recent years. It does not involve the merger of the farms but cooperation between them with respect to various matters of mutual interest. Among the activities undertaken by these associations are construction, production of building materials, management of electric-power stations, repair shops for machinery, on-farm processing plants, feed lots, hatcheries, truck depots, rest homes, and other enterprises serving jointly a number of collective farms. Although most of the intercollective farm associations were organized for a single purpose, such as building construction or management of electric-power stations, some multiple-purpose associations were organized also. In 1960, there were nearly 4,000 associations with a membership of more than 35,000 collective farms. Some collective farms were members of more than one association. This form of cooperation enables collectives to solve important problems jointly that they could not have done alone.

No major policy developments were announced during 1961 with respect to the private farm sector -- the little private plots and livestock of the members of collective farms and other workers. The official attitude continues to be that of the expected gradual withering of this sector as the collective farm economy attains the capacity to supply the peasants adequately with food and income for which they must depend now on their small private acre-and-cow farming. In 1959, the private farm sector, with some contribution of feed from the collective sector, accounted for nearly half of the meat and milk, over 80 percent of the eggs, and over 60 percent of the potatoes produced in the country.<sup>11/</sup> This intensive private farming, linked with a limited, legal free retail market in nearby cities, makes a significant contribution to the national food supply as well as to the individual farmer's income. Sample surveys showed that private farming accounted for over 40 percent of the income of the able-bodied members of collective farms in 1957 and over 38 percent in 1958.<sup>12/</sup> Since private farming competes with the collective farm economy for the workers' time and is one of the last vestiges of private enterprise, it has been quite a thorn in the Kremlin's side.

Despite the official doctrine of withering away of the small private farm sector, and sporadic reports during recent years of measures taken by local authorities to diminish the size of private plots, their average size in collective farms remained fairly stable between 1954 and 1959, varying between 0.70 and 0.72 acre per household as compared with 0.68 in 1953 and 0.59 in

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<sup>10/</sup> SSSR v Tsifrakh v 1961 godu (Moscow, 1962).

<sup>11/</sup> Sel'skoe Khozyaistvo SSSR, 1960.

<sup>12/</sup> Voprosy Ekonomiki, No. 8, p. 77.

1940. But the average size of the private plot decreased from 0.71 acre in 1959 to 0.65 acre in 1960. At the same time, the total number of peasant households in collective farms declined from 18.5 million in 1959 to 17.1 million in 1960, reflecting the conversion of collectives into state farms. Previously when a decrease took place in the number of households from 19.9 million households in 1956 to 18.9 in 1957, the average size of the plot increased slightly. Data are not available as yet for 1961 to indicate whether the reduction in 1960 signalized the beginning of a downward trend. <sup>13/</sup>

No statistics on the earnings of collective farmers have been published<sup>1</sup> for recent years. Doubtless the earnings are higher than they were before 1953-58. During 1953-58 low prices formerly paid by the government for commodities from the collective farms were considerably increased. Khrushchev admitted, however, at the March plenum that "collective farms permitted serious distortions in the distribution of income." He pointed out that his "recommendation" in the late 1950's to increase public welfare expenditures in collective farms (such as building clubs, schools, hospitals, and nurseries) rather than raise payments to individual workers led to serious encroachment on the amount of income available for distribution to collective farmers. He now condemns this practice. In fact, at the March plenum and the various conferences in 1961 he stressed increased economic incentives to the farmers and bonuses for high output.

Some increase in the earnings of the peasants, particularly in collectives concentrating on animal husbandry, may be expected as a result of the higher livestock procuring prices announced on June 1, 1962. Another source of increased earnings is the savings from reduced prices paid by the collectives for machinery, spare parts, fuel, building materials, and metal products, and from a reduction of the income tax. The savings are said to total 1.15 billion rubles per year. Together with the claimed gain of more than 1 billion rubles from the increase in livestock procuring prices, the additional cash income would amount to more than 15 percent of the total 1961 cash income of collective farms. How this additional income will be distributed between payments to members and investment is not known. It should not be overlooked that members of collective farms receive a considerable proportion of their earnings in kind, that is in grain and other crops, which depend to a large extent on the harvest. Finally, the serious obstacle to increased economic incentives to farmers in terms of goods -- namely the high cost of manufactured goods -- still remains.

The problem of agricultural specialists and of seasonal farm labor came in for much official criticism.

A government decree published in the Moscow press on Apr. 12, 1962, aims to improve the status and the low levels of living on collective and state farms. On Dec. 1, 1960, there were more than 98,000 college-trained specialists working on farms and in machinery-repair stations. In addition, there

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<sup>13/</sup> During 1961-62 several republics published decrees restricting the number of livestock which could be owned by urban population.

were nearly 290,000 specialists who had graduated from specialist middle schools.

The Soviet government announced in a decree on July 12, 1962, that a long standing practice -- the use of nonagricultural labor to assist in the peak harvest period -- must be drastically curtailed. Henceforth collective and state farms will be expected to carry out harvest work with their own personnel. Farms requiring additional labor must prove that the harvest cannot be completed with outside workers. If this is the case, local authorities must attempt to fill the labor requirements from among the local urban population.

In the decree it was pointed out that the cost of obtaining seasonal labor from the cities was high and that the productivity of persons drawn from outside for work in the collective and state farms is low. If such a program is to succeed, it will be necessary to make many important changes in present practices. It is true as the decree points out that the quantity of farm machinery has increased, but it is far from adequate. Repair and efficient use of available equipment continues to be a major problem in Soviet agriculture. According to official Soviet reports, many regions approach the harvest period with a large proportion of their machinery inoperable. A shortage of competent operators also is a problem frequently mentioned by the Soviets.



Production

Agricultural output in Poland during 1961-62 maintained the growth pattern of recent years despite periods of unfavorable weather during the harvesting season. Total output of crops in 1961-62 is estimated to be about 5 percent above the 1960-61 level (table 6). Grain production in 1961 was about 1 to 1½ million tons greater than that in 1960. Higher potato yields on about the same acreage resulted in a larger production than in 1960. Output of sugar-beets and sugar increased. Oilseed production was also larger than in 1960 as a result of both increased acreage and higher yields. The 1961 output of fruits and vegetables, however, was below that of the preceding year. Numbers of cows as well as total cattle and pigs increased, while the numbers of sheep and horses continued to decline. The largest gains in animal products were in eggs, processed meat (bacon and canned hams), and poultry meat output.

Although mechanization in Polish agriculture is still quite limited, the total number of tractors (in terms of 15 h.p. equivalents) has increased from 25,500 to 76,200 during the last decade. This has resulted in an improvement in the arable-land-per-tractor ratio from 1,549 to 516 acres. During this same period, numbers of horses have remained relatively unchanged. As a result, the total draft power available has increased considerably. In the latter part of 1961, an agreement was reached between Czechoslovakia and Poland for Poland to discontinue the production of its own models of tractors by 1965 and to initiate production of Czechoslovak models. In the long run, the two governments believe that this arrangement will eliminate duplication of manufacturing facilities in those neighboring countries. In the short run, however, some dissatisfaction has been noted in various Polish quarters because of the time and resources already invested in developing a suitable Polish tractor.

Another factor contributing to increased agricultural output during recent years in Poland has been the increased utilization of commercial fertilizers. The prewar level of commercial fertilizer usage was not reached in Poland until the crop year 1955-56, but since then application rates have increased about 35 percent to 46.2 pounds of plant nutrients per acre of cultivated land. During the crop year 1962-63, further increases to 48.4 pounds per cultivated acre are planned.

Policy

Small peasant farming dominates the Polish agricultural scene. It accounts for 87 percent of the agricultural area (table 7). Collectivization of agriculture, though recognized as the long-range government goal, has not been pressed by the Polish government since the decollectivization of agriculture in 1956. However, compulsory deliveries from private producers still account for the largest share of state acquisitions of grain, potatoes, and livestock. In June 1961 a new law was passed authorizing the expropriation of unproductive small private farms by the state. Although the acreage of agricultural land involved is small (about 1.5 percent of the total), this is the first indication of a somewhat stiffer government attitude toward independent farming in Poland.



Table 6. -- Farm production in Poland: Acreage and production of principal crops, number of livestock, and output of animal products, average 1955-57, annual 1958-61

Commodity	1955-57 average			1958			1959			1960			1961		
	Area	Production	Product	Area	Production	Product	Area	Production	Product	Area	Production	Product	Area	Production	Product
Wheat	1,000 acres	1,000 bushels	1,000 acres	1,000 bushels	1,000 acres	1,000 bushels	1,000 acres	1,000 bushels	1,000 acres	1,000 bushels	1,000 acres	1,000 bushels	1,000 acres	1,000 bushels	1,000 bushels
Rye	3,571	80,394	3,642	85,281	3,546	91,270	3,363	84,619	3,469	84,619	3,469	102,476	3,469	102,476	102,476
Corn for grain	12,340	275,537	12,881	288,528	12,854	319,393	12,656	310,141	12,096	310,141	12,096	330,179	12,096	330,179	330,179
Oats	22	5,984	10	886	37	827	40	1/1,653	74	1/1,653	74	3,149	74	3,149	3,149
Barley	4,097	162,728	4,223	183,947	4,169	171,064	4,055	191,112	3,971	191,112	3,971	200,964	3,971	200,964	200,964
	1,957	55,069	1,833	55,574	1,591	47,904	1,772	60,167	1,685	60,167	1,685	60,718	1,685	60,718	60,718
	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Potatoes	6,736	37,393	6,815	38,360	6,889	39,350	7,107	41,728	6,961	41,728	6,961	41,887	6,961	41,887	41,887
Sugarbeets	902	7,840	885	9,289	929	6,586	991	11,312	1,038	11,312	1,038	12,566	1,038	12,566	12,566
Rape	301	2/88	220	2/61	227	128	267	1/142	395	1/142	395	242	395	242	242
Livestock: 3/															
Number:															
Cattle	---	8,177	---	8,210	---	8,353	---	8,695	---	8,695	---	9,160	---	9,160	9,160
Hogs	---	11,591	---	11,959	---	11,209	---	12,615	---	12,615	---	13,449	---	13,449	13,449
Sheep	---	4,167	---	3,882	---	3,778	---	3,662	---	3,662	---	3,509	---	3,509	3,509
Production:															
Meat (carcass weight)	---	3,358	---	3,931	---	3,776	---	3,871	---	3,871	---	4,262	---	4,262	4,262
Milk	---	22,945	---	26,145	---	27,121	---	27,530	---	27,530	---	28,623	---	28,623	28,623

1/ USDA estimate.  
2/ State purchase only.  
3/ As of June 3.

Official Polish sources

Table 7. -- Poland: Socialist sector of agriculture, Jan. 1, 1961

Item	Collectives		State farms		Total socialist farms	
	: Total	: Percentage of : country total	: Total	: Percentage of : country total	: Total	: Percentage of : country total
Number of farms . . .	1,668	Percent ---	7,876	Percent ---	9,544	Percent ---
Workers . . . . .	Thousands 3/22	---	Thousands 309	---	Thousands 4/375	---
Tractors (in terms of: 15 h.p.) . . . . .	2.3	3.1	5/51.9	68.1	54.2	71.2
Area:	1,000 acres		1,000 acres		1,000 acres	
Sown . . . . .	452	1.2	4,522	11.9	4,974	13.1
Arable . . . . .	484	1.2	4,732	12.0	5,216	13.2
Total agricultural:	588	1.1	5,992	11.9	6,580	13.0
Livestock numbers: 6/:	1,000 head		1,000 head		1,000 head	
Cattle, total . . .	32.4	.4	775.6	8.9	808.0	9.3
Cows . . . . .	16.8	.3	376.2	6.4	393.0	6.7
Hogs . . . . .	40.1	.3	606.6	4.8	646.7	5.1
Sheep . . . . .	16.3	.4	330.5	9.0	346.8	9.4
Horses . . . . .	9.0	.3	154.9	5.5	163.9	5.8

1/ Applies to tractors, area, and livestock number only.

2/ Includes other publicly owned farms.

3/ Family members of collectives.

4/ Officially reported total employed in socialized sector of agriculture.

5/ Includes tractors belonging to machine-tractor stations (Panstwowe Osrodki Maszynowe). However, in Poland these stations provide services for the private farmers without discrimination that is commonly found in other Communist countries.

6/ Collectively owned livestock only, does not include livestock on privately owned plots of collective members.

Official Polish sources.

A significant policy development has been the increase in the land tax levied on private farmers announced in April 1962. This increase will result in a 15-percent rise in tax revenue. The official reason given for the increase was that "real income" of the farming population increased by more than 11 percent in 1961 while average wages in the socialized nonagricultural sector of the economy increased only  $2\frac{1}{2}$  percent over 1960. Indications are that part-time farmers with less than 5 acres, who had previously enjoyed tax advantages, will be among those hardest hit by this tax change.

Although the government claims there has been no increase in tax rates in the last 6 years, revenue from land taxes increased 35 percent between 1956 and 1961 as a result of reclassification of land and collection of back taxes. Currently about 60 percent of the land has been reclassified; 1965 is the target date for completion.

### Food Situation

No food shortages were reported in Poland last year as in many other bloc countries. Per capita caloric intake for 1961-62 is estimated to have been 3,100 calories per day, or considerably above Poland's prewar average of 2,800 calories. However, grains and potatoes still account for nearly three-fifths of the total intake with a shift from rye to wheat bread continuing. Increases in eggs, poultry, red meat, and pork production have not resulted in a correspondingly larger domestic consumption as the proportion exported has increased.

### Foreign Trade

Significant increases during 1961 compared to 1960 occurred in exports of sugar, pigs for slaughter, poultry, eggs, and cotton fabrics. While the value of agricultural imports was nearly 8 percent higher in 1961 than a year earlier, agricultural exports increased nearly 35 percent. Agricultural commodities accounted for 15 percent of total imports in 1961 compared to 16 percent in the previous year. Similarly, agricultural exports rose to 21 percent of all exports compared to 18 percent in 1960.

About 60 percent of Poland's total trade turnover is with the Sino-Soviet bloc, of which about half is with the Soviet Union. Wheat and cotton are the principal agricultural imports from the USSR, while sugar, cotton, and wool fabric are principal exports. As a result of the P.L. 480 agreements concluded with the United States since 1957 (valued at about \$410 million), Polish farm imports from the United States, mainly wheat, are important. U.S. aid alleviated Poland's unfavorable trade balance although Poland still imports more than it exports. U.S. aid also contributed to the building of food stocks, thus assisting the Polish Government in pursuing its more liberal farm policy. The increase in exports of farm products to western countries in recent years has provided an important source of foreign exchange enabling Poland to purchase agricultural products and industrial equipment required for its economic growth and development.



Production

Agricultural output in Czechoslovakia during 1961 was below that of 1960 (table 8). Excessively wet weather caused delays in spring work as well as a poor quality hay crop and lodging of grain. Total grain production was below that of 1960 primarily because of lower outturn of barley and oats. Sugarbeets did not equal the 1960 bumper crop. Potato production remained about the same as the record low level of 1960. Livestock numbers were up, but the output of red meat, milk, and other livestock products except eggs were below 1960 levels. Dissatisfaction with the performance of the agricultural sector was a major reason for cabinet changes in 1961.

The agricultural draft power situation has improved in recent years. Total number of tractors in the socialized sector, in terms of 15 h.p. equivalents, more than trebled during the last decade, from about 29,000 to 94,000 units, while horse numbers have decreased about 50 percent. Arable land per 15 h.p. equivalent tractor decreased during this period from 484 to 134 acres.

Application of commercial fertilizer increased threefold during the last decade and during the 1959-60 crop year amounted to 86.0 pounds of plant nutrients per acre of arable land. This is more than 5 times the prewar average of 16.1 pounds per acre. However, no figures are available as to the current usage of manure which before World War II accounted for about three-quarters of the total nutrients applied.

Despite gains made in mechanization and other labor-saving innovations, agriculture continues to be hindered by a shortage of trained labor. Migration of rural people to cities has continued throughout the postwar years depleting an already short farm labor supply. During harvest periods white collar and industrial workers, as well as military personnel, are frequently used. This adds to the confusion prevailing on the already poorly managed state or collective farm.

Policy

Since 1948, when the Communists gained control of the country, collectivization of agriculture has been one of the main goals in farm policy. Although the Czech Government has failed to achieve its planned agricultural production, about 65 percent of the total agricultural land has been collectivized (table 9). The current policy aims at the amalgamation of collectives in the belief that this will result in units of more efficient size (approximately 2,500 to 3,750 acres of agricultural land per collective) and at increasing still further the state's control of the collectives. A corollary objective of the current policy is gradually to eliminate the small private holdings of collective members, which account for approximately 5 percent of the total agricultural land, 10 percent of the cattle, 16 percent of the swine, and 33 percent of the poultry. There is no indication whether the remaining private farms, mainly marginal farms located in the hilly sections of Slovakia, will be forced into collectives in the near future, although, as in other Soviet-bloc countries, complete agricultural socialization remains the long-range objective.

Table 8. -- Farm production in Czechoslovakia: Acreage and production of principal crops, number of live-stock, and output of animal products, average 1955-57, annual 1958-61

Commodity	1955-57 average :			1958 :			1959 :			1960 :			1961 :		
	Area	Production	Area	Production	Area	Production	Area	Production	Area	Production	Area	Production	Area	Production	Area
Wheat . . . . .	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
	acres	bushels	acres	bushels	acres	bushels	acres	bushels	acres	bushels	acres	bushels	acres	bushels	bushels
Rye . . . . .	1,799	55,592	1,824	49,456	1,779	60,589	1,611	55,225	1,589	55,225	1,589	60,038	1,589	60,038	60,038
Barley . . . . .	1,260	38,935	1,231	36,888	1,176	38,069	1,065	35,243	1,144	35,243	1,144	37,754	1,144	37,754	37,754
Oats . . . . .	1,631	62,188	1,653	55,069	1,661	67,378	1,747	80,146	1,720	80,146	1,720	72,843	1,720	72,843	72,843
Corn for grain :	1,320	66,758	1,253	60,007	1,253	64,003	1,245	70,272	1,149	70,272	1,149	65,725	1,149	65,725	65,725
	423	16,220	445	18,857	462	19,802	482	22,518	497	22,518	497	20,708	497	20,708	20,708
Potatoes . . . . .	1,549	9,662	1,500	7,263	1,446	6,982	1,406	5,614	1,273	5,614	1,273	1,000	1,273	1,000	1,000
Sugarbeets . . . . .	556	6,434	578	7,657	598	5,452	598	9,224	588	9,224	588	1,000	588	1,000	1,000
Rape . . . . .	79	47	96	53	114	80	96	61	136	61	136	91	136	91	91
Livestock: 2/ . . . . .		1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Number:		head	head	head	head	head	head	head	head	head	head	head	head	head	head
Cattle . . . . .	---	4,094	---	4,183	---	4,303	---	4,387	---	4,387	---	1/4,518	---	1/4,518	1/4,518
Hogs . . . . .	---	5,142	---	5,283	---	5,687	---	5,962	---	5,962	---	1/5,895	---	1/5,895	1/5,895
Sheep . . . . .	---	991	---	817	---	727	---	646	---	646	---	3/	---	3/	3/
Production:		Million	Million	Million	Million	Million	Million	Million	Million	Million	Million	Million	Million	Million	Million
Meat 4/ . . . . .	---	1,856	---	1,967	---	1,991	---	2,050	---	2,050	---	1,984	---	1,984	1,984
Milk . . . . .	---	8,056	---	8,290	---	8,288	---	8,436	---	8,436	---	8,175	---	8,175	8,175

1/ USDA estimate. 2/ As of Dec. 31. 3/ Not available. 4/ Live weight.

Official Czechoslovakian sources.

Table 9. -- Czechoslovakia: Socialist sector of agriculture, Jan. 1, 1961

Item	Collectives <sup>1/</sup>		State farms <sup>2/</sup>		Total socialist farms	
	: Percentage of :		: Percentage of :		: Percentage of	
	Total	: country total:	Total	: country total:	Total	: country total
Number of farms . . .	10,816	Percent ---	367	Percent ---	11,183	Percent ---
Workers . . . . .	Thousands 878	---	Thousands 223	---	Thousands 1,101	---
Tractors (in terms of:						
15 h.p. . . . .	67.0	71	3/23.6	25	90.6	96
Area:						
Sown . . . . .	1,000		1,000		1,000	
Arable . . . . .	acres		acres		acres	
Agricultural . . . .	8,095	66	2,167	18	10,262	84
	8,409	66	2,461	20	10,870	86
	11,238	62	3,682	20	14,920	82
Livestock numbers: <sup>4/</sup>						
Cattle, total . . .	1,000		1,000		1,000	
Cows . . . . .	head		head		head	
Hogs . . . . .	2,719	62	697	16	3,416	78
Sheep . . . . .	1,100	54	272	13	1,372	67
Horses . . . . .	3,158	53	1,093	18	4,251	71
	298	46	167	26	465	72
	5/	5/	5/	5/	5/	5/

<sup>1/</sup> Types III and IV only, does not include member plots.<sup>2/</sup> Includes other publicly owned farms.<sup>3/</sup> Includes tractors belonging to machine-tractor stations (Strojní a Traktorové stanice).<sup>4/</sup> Collectively owned livestock only. Does not include livestock privately owned by collective members.<sup>5/</sup> Not available.

Official Czechoslovakian sources.



In April 1962, the Czech Government enacted two measures aimed at further centralization and extension of governmental control. A new, central agency was created for the supervision and coordination of deliveries of agricultural products. The system of compulsory delivery quotas was extended to cover holders of small plots, both farmers and nonfarmers. Efforts to improve agricultural incentives by increasing producer prices have been discussed in the press but not enacted into law.

### Food Situation

The average daily per capita caloric intake is estimated to be approximately 3,000 calories, of which about 50 percent is derived from grains and potatoes. Shortages of such foodstuffs as milk, eggs, and especially meat occurred in 1961 and 1962 because of the inability of Czech farmers to fulfill planned delivery goals and a decline in meat imports since 1959.

### Foreign Trade

Czechoslovakia has never been agriculturally self-sufficient. It continues to depend heavily on food imports for its growing population.

Before World War II, about 90 percent of Czechoslovakia's total foreign trade was with the present free-world countries, whereas today approximately 70 percent is with the Sino-Soviet bloc. Among agricultural products imported are: wheat (approximately 40 million bushels annually), meat, a variety of other foodstuffs, animal feeds (including barley, corn, and other feeds), cotton, and wool. A decline in meat imports during 1960 and 1961 aggravated the problem of the meat supply. Principal agricultural exports are hops, malt, and sugar. In recent years, there has been increased emphasis on trade with underdeveloped countries. Czechoslovakia provides complete factory installations, industrial equipment, and technicians in exchange for agricultural products and raw materials either through barter arrangements or the extension of credit at low interest rates. Czechoslovak-U.S. trade, significant before World War II, has never reached any prominence since the initial postwar-aid programs were discontinued.

## EAST GERMANY

### Production

Agricultural production in East Germany has been declining since 1959. The situation is in sharp contrast to that of West Germany. Yields per acre of major crops in East and West Germany are shown as follows:

Crop	Unit	East Germany		West Germany	
		1935-38	1960	1935-38	1960
		average 1/	2/	average 1/	3/
Wheat.....	Bushel	40.6	48.6	36.4	52.9
Rye.....	do.	29.8	33.6	32.1	45.9
Oats.....	do.	65.9	73.6	63.5	81.1
Barley.....	do.	47.8	56.9	43.3	61.2
Potatoes.....	Cwt.	169.7	157.9	165.0	210.4
Sugarbeets.....	S. ton	13.0	11.9	14.6	18.7
Oilseeds 4/.....	Pound	1,303	1,285	1,490	1,918
Tobacco.....	do.	5/	839	2,355	1,257

1/ Officially reported yields, increased for grains and potatoes by 10 percent in accordance with re-evaluation by W. German Institut für Landwirtschaftliche Marktforschung. 2/ USDA estimates except for oilseeds and tobacco.

3/ Official West German estimates. 4/ Primarily rapeseed. 5/ Not available.

The downward trend of agricultural production in East Germany reached serious proportions in 1961 with production of many crops falling to the lowest levels in a decade (table 10). The East German government acknowledged the following percentage declines for four major crops:

Crop	Percentage decline between 1960-1961
Total grains.....	24 percent
Sugarbeets.....	32 percent
Potatoes.....	43 percent
Corn for silage.....	37 percent

Livestock production suffered particularly during the last 2 years. Feed for livestock, which was short in 1960, declined precipitously in 1961. The very harsh winter of 1961-62, followed by a cold and prolonged spring resulted in a decline in livestock numbers. The number of pigs in June 1962 was 1.3 million less than in June 1961. The number of cows declined 46,000 during the same period. In addition to actual decline in livestock numbers, the decline in livestock productivity, evident in previous years (table 10), continued to manifest itself in less meat per animal, less milk per cow, fewer eggs per hen, and less wool per sheep.

Undoubtedly poor weather in East Germany during the past 2 years accounts for part of this decline. But the drastic push for complete collectivization in 1960, involving almost half the agricultural area of East Germany, and the dislocation and disorganization that followed was an important contributing factor.

Mechanization of agriculture in East Germany has progressed during the last decade with the total number of tractors approximately doubling to an

Table 10. -- Farm production in East Germany: Acreage and production of principal crops, number of livestock, and output of animal products, average 1955-57, annual 1958-61

Commodity	1955-57 average			1958			1959			1960			1961		
	Area	Production	Area	Production	Area	Production	Area	Production	Area	Production	Area	Production	Area	Production	Area
	: acres	: bushels	: acres	: bushels	: acres	: bushels	: acres	: bushels	: acres	: bushels	: acres	: bushels	: acres	: bushels	: acres
Wheat . . . . .	1,000	40,932	1,000	47,068	1,000	47,362	1,000	50,301	1,000	50,301	1,000	50,301	1,000	38,154	932
Rye . . . . .	2,703	84,681	2,703	87,633	2,550	78,933	2,550	78,933	2,338	78,657	2,338	78,657	2,038	59,227	2,038
Corn for grain:	7	197	7	236	5	157	5	157	5	157	5	157	5	109	5
Oats . . . . .	1,184	79,779	1,055	74,061	1,013	62,556	1,013	62,556	887	65,243	887	65,243	866	58,949	866
Barley . . . . .	808	38,213	833	40,188	875	44,873	875	44,873	961	54,793	961	54,793	1,068	43,476	1,068
Potatoes . . . . .	2,006	13,281	1,900	11,660	1,905	12,611	1,905	12,611	1,903	15,030	1,903	15,030	1,684	9,312	1,684
Sugarbeets . . . . .	521	5,638	551	7,152	578	4,776	578	4,776	588	7,008	588	7,008	534	4,684	534
Rape . . . . .	304	196	324	138	309	203	309	203	287	198	287	198	290	185	290
Livestock: 2/															
Number:															
Cattle . . . . .	---	3,741	---	3,744	---	4,145	---	4,145	---	4,465	---	4,465	---	4,675	---
Hogs . . . . .	---	8,537	---	8,255	---	7,504	---	7,504	---	8,283	---	8,283	---	8,316	---
Sheep . . . . .	---	1,906	---	2,019	---	2,111	---	2,111	---	2,115	---	2,115	---	2,015	---
Production:															
Meat 3/ . . . . .	---	2,361	---	2,540	---	2,513	---	2,513	---	2,705	---	2,705	---	2,791	---
Milk 4/ . . . . .	---	10,983	---	11,912	---	12,191	---	12,191	---	12,012	---	12,012	---	11,581	---

1/ USDA estimate, except for livestock numbers. 2/ As of Dec. 3 of previous year. 3/ Live weight.  
4/ Includes goat's milk.

Official East German sources.



estimated 72,000 units in 1960, while horse numbers have decreased only 40 percent. Arable land per tractor unit during this period has decreased from 343 to 166 acres. Yet loss of farm labor to East German cities and to West Germany, before the erection of the wall in Berlin, has been at a greater rate than the implementation of labor-saving equipment. In order to complete harvesting on time, it has been necessary to use industrial workers and military personnel on a considerable scale.

East Germany, however, leads the East European countries in commercial fertilizer application. Usage has increased about 40 percent, from 126.8 pounds of plant nutrients per acre of arable land in 1938 to 174.0 pounds per acre in 1959-1960. This compares with the usage in West Germany which increased from 125.35 to 268.1 pounds per acre during the same period.

### Policy

In the spring of 1960 the government of East Germany announced that agriculture had been socialized 100 percent (table 11). The net effect of this to date has been a decrease in overall agricultural production. Bad weather during recent years accentuated the shortcomings of the hastily organized collective farms. Despite this, the government of East Germany is clinging to collectivization, with increasing conversion of collectives of the "lower" into the "higher" or tighter forms. In the spring of 1962 a new form of Type II collective farm was announced which is designed to speed the transition from Type I (least collectivized) to Type III (most collectivized) farms. It provides for more rigid control and less individual action than the previous Type II structure.

### Food Situation

The food situation in East Germany during 1961-62 reflected the serious crop difficulties of the 1960 and 1961 harvests and the complete collectivization campaign. Food shortages have appeared in many commodities, particularly potatoes, meat, milk products, poultry, eggs, and vegetables. These shortages have been publicly acknowledged by the East German leadership and steps have been taken to "ration" those commodities which are in short supply. The "customer list" system, whereby a customer must register with one store and once a week receive his share of whatever the store has on hand, for butter has existed since early 1961. On Aug. 6, 1962, the customer list was extended to meat and sausage products. Potatoes have been "rationed" in a similar manner for some time, and this has been extended to June 1963.

In addition to measures designed to curtail the demand for many agricultural commodities, the East German government has taken steps to stimulate the supply. In a reversal of previous policy, the government publicly encouraged (June 1962) individuals with private plots to raise livestock, poultry and other commodities for their own needs and for sale in the market. On Aug. 4, 1962, it raised the purchase prices for fat pigs, except for those delivered by the state farm sector, from 413 to 510 deutsche marks per 100 kilograms. Slaughtering has been curtailed or prohibited in many regions, in an effort to replenish the depleted livestock herds.

Table 11. -- East Germany: Socialist sector of agriculture, 1961

Item	Date	Collectives		State farms		Other public farms		Total socialist farms	
		:Percentage:		:Percentage:		:Percentage:		:Percentage:	
		Total : of country:	: total :	Total : of country:	: total :	Total : of country:	: total :	Total : of country:	: total :
Number of farms	11/1/60	Percent	669	Percent	9,811	Percent	29,756	Percent	---
Workers	9/30/60	Thou- sands	79	Thou- sands	1/361	Thou- sands	1,402	Percent	---
Tractors (in terms of 15 h.p.)	11/15/60	18.2	6.4	8.7	2/45.9	62.9	70.6	96.6	
Area:									
Sown	11/1/60	1,000 acres	778	6.5	104	.9	10,576	88.7	
Arable	do.	9,733	798	6.7	173	1.4	10,704	89.3	
Agricultural	do.	11,616	996	6.3	316	2.0	12,928	81.2	
Livestock numbers: 3/									
Cattle, total	12/28/60	1,000 head	293	6.3	21	.4	2,564	54.8	
Cows	do.	876	101	4.6	6	.3	983	45.2	
Hogs	do.	3,519	676	8.1	265	3.2	4,460	53.6	
Sheep	do.	870	283	14.0	19	.9	1,172	58.1	
Horses	do.	152	17	3.8	6	1.3	175	39.1	

1/ Includes machine-tractor station personnel.

2/ Includes tractors belonging to machine-tractor stations (Maschinen-Traktoren-Stationen).

3/ Collectively owned livestock only. Does not include that livestock privately owned by collective members.

Official East German sources.

The East German government, which made surprisingly frank announcements about the food situation in 1962, has held out little hope of immediate improvement. In addition to rationing, the East German consumer has been repeatedly told that no additional food imports can be expected because of a lack of compensatory exports.

### Foreign Trade

East Germany imports large quantities of animal products and grains, mainly from the Soviet Union, Poland, and other bloc countries. Food and non-alcoholic beverages account for 27 percent of her total annual imports. Since World War II, there have been no significant exports of agricultural products, with the exception of sugar. Although before 1939, this area of Germany was a net exporter of grains.

## HUNGARY

### Production

Agricultural output in Hungary in 1961-62 was about the same as 1960-61 but 9 percent below the record year of 1959-60. The failure of agricultural production to rise is mainly attributable to intensive collectivization and a late drought which resulted in significant decreases in the production of corn, sugarbeets, potatoes, and late vegetables (table 12). With a fall in corn output of about 30 million bushels and a sharp decline in other feedstuffs, it is not likely that animal stocks were maintained despite corn imports of 9.8 million bushels from the Soviet Union. Consequently, an increase in meat production is expected to have offset the decrease in crop production. The record wheat yield in 1961 was the one bright spot. Even though the area sown to breadgrains in 1961 was 5 percent below 1960 and 12 percent below the planned level, production was 5 percent above 1960. Production of sunflower seed also increased over 1960 as a result of an 85 percent increase in acreage.

According to official statements, farm income in 1961 was lower than in the previous year. In 1960, in turn, cash income from agriculture was 13 percent less than in 1957, the year before intensive collectivization started. These decreases in income have occurred while agricultural investments by the State during the last 2 years increased considerably. An important element in the decline of cash income was the restriction of "free market" sales.

### Policy

Over 80 percent of the arable land was socialized by Mar. 31, 1961, and current government claims run above 90 percent, compared to 29 percent in 1958 (table 13). Further expansion of the collective farms by some 322,000 members (and their families) and by some 1,880,000 acres served to intensify all of the problems that have been inherent in collectivized agriculture in Hungary. These include the lack of experienced farm managers, a shortage of workers, especially able-bodied males, shortages of farm machinery, and, probably the most significant, peasants' lack of incentives and dislike for collective farming. The regime has been occupied with these problems, but none is readily amenable to solution. Among the measures undertaken were the following: The



Table 12. -- Farm production in Hungary: Acreage and production of principal crops, number of livestock, and output of animal products, average 1955-57, annual 1958-61

Commodity	1955-57 average			1958			1959			1960			1961		
	Area	Production	Area	Production	Area	Production	Area	Production	Area	Production	Area	Production	Area	Production	Area
	1,000 acres	1,000 bushels	1,000 acres	1,000 bushels	1,000 acres	1,000 bushels	1,000 acres	1,000 bushels	1,000 acres	1,000 bushels	1,000 acres	1,000 bushels	1,000 acres	1,000 bushels	1,000 bushels
Wheat . . . . .	3,289	72,678	2,936	54,640	2,758	70,153	2,597	64,943	2,505	71,123	2,505	64,943	2,505	71,123	2,505
Rye . . . . .	1,077	19,999	930	14,594	872	17,448	744	13,956	662	11,688	662	13,956	662	11,688	662
Barley . . . . .	1,065	21,173	1,330	33,772	1,336	50,214	1,256	45,272	1,289	45,213	1,289	45,272	1,289	45,213	1,289
Oats . . . . .	339	14,123	427	13,207	420	17,623	348	14,019	273	9,590	273	14,019	273	9,590	273
Corn . . . . .	3,128	107,317	3,222	111,514	3,356	140,056	3,462	137,957	3,310	106,876	3,310	137,957	3,310	106,876	3,310
	1,000 short tons	1,000 short tons	1,000 short tons	1,000 short tons	1,000 short tons	1,000 short tons	1,000 short tons	1,000 short tons	1,000 short tons	1,000 short tons	1,000 short tons	1,000 short tons	1,000 short tons	1,000 short tons	1,000 short tons
Potatoes . . . . .	618	2,656	593	2,865	569	2,608	624	2,927	593	1,797	593	2,927	593	1,797	593
Sugarbeets . . . . .	257	2,230	268	2,281	302	2,953	329	3,715	322	2,596	322	3,715	322	2,596	322
Sunflower seed . . . . .	319	158	209	110	240	127	172	75	317	116	317	75	317	116	317
	1,000 head	1,000 head	1,000 head	1,000 head	1,000 head	1,000 head	1,000 head	1,000 head	1,000 head	1,000 head	1,000 head	1,000 head	1,000 head	1,000 head	1,000 head
Livestock: 1/ Number:															
Cattle . . . . .	---	1,973	---	2,004	---	1,971	---	1,957	---	1,987	---	1,957	---	1,987	---
Hogs . . . . .	---	4,996	---	6,225	---	5,356	---	5,921	---	6,409	---	5,921	---	6,409	---
Sheep . . . . .	---	1,873	---	2,155	---	2,381	---	2,643	---	2,850	---	2,643	---	2,850	---
	1,000 head	1,000 head	1,000 head	1,000 head	1,000 head	1,000 head	1,000 head	1,000 head	1,000 head	1,000 head	1,000 head	1,000 head	1,000 head	1,000 head	1,000 head
Production:															
Meat (carcass weight) 2/ . . . . .	---	900	---	910	---	1,000	---	850	---	905	---	850	---	905	---
Milk 2/ . . . . .	---	3,525	---	3,970	---	4,380	---	4,280	---	4,200	---	4,280	---	4,200	---

1/ Livestock numbers are for Mar. 1 of the following year.

2/ USDA estimates.

Official Hungarian sources.

Table 13.--Hungary: Socialist sector of agriculture, March 1961

Item	Collectives		State farms 1/		Other public farms 2/		Total socialist farms	
	Total	: of country	Total	: of country	Total	: of country	Total	: of country
	: total	: total	: total	: total	: total	: total	: total	: total
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
	-----	-----	-----	-----	-----	-----	-----	-----
Number of farms.....	4,572	333	3/	243	5,148	83.0		
Workers.....	Thousands	Thousands	Thousands	Thousands	Thousands	Thousands	Thousands	Thousands
Tractors (in terms of	4/ 1,202	179	10.0	54	3.0	1,435	83.0	
15 h.p.) 5/.....	6.8	12.1	25.4	28.9	60.4	47.9	100.0	
Area:	1,000	1,000		1,000		1,000		
Arable.....	acres	acres		acres		acres		
Agricultural 6/.....	8,612	1,752	13.5	427	3.3	10,790	83.0	
	11,404	2,403	12.2	683	3.5	14,490	73.6	
Livestock numbers:	1,000	1,000		1,000		1,000		
Cattle, total.....	head	head		head		head		
Cows.....	618.5	247.5	12.6	7/	7/	866.0	44.2	
Hogs.....	239.5	91.5	10.0	7/	7/	331.0	36.0	
Sheep.....	1,266.7	834.9	14.1	7/	7/	2,101.6	35.5	
Horses.....	1,261.4	983.5	37.2	7/	7/	2,244.9	84.9	
	261.0	51.8	11.2	7/	7/	312.9	67.6	

1/ Includes state-owned enterprises and institutions; excludes state forests.

2/ Includes machine-tractor stations.

3/ Machine-tractor stations only.

4/ Members of collectives.

5/ Jan. 1, 1961.

6/ Estimated.

7/ Included in collective or state farm totals.

Official Hungarian sources.

transfer to newly formed and expanded collectives of some 6,000 technicians and administrators whose incomes, in many cases, were subsidized by the State; an increase in agricultural investment in mid-1961; establishment of model farms and agricultural technical schools; attempts to attract and to drive young people back to the farm; establishment of a system of remuneration for collective members which, it was hoped, by appealing to self-interest would induce a more effective participation in their work on common lands.

Because of the drought and their own less-than-adequate performance, the results achieved by the collective farms as Hungarian agriculture came close to complete socialization, left much to be desired. According to the Central Committee expert on agriculture, Lajos Feher, during 1961 there were some 650 farm collectives operating at a loss as compared with 600 such deficit collectives in the previous year. Of the 650 deficit collectives, some 200 had operated at a deficit in 1960 and another 240 were chronically "weak collectives"--that is, they perennially require state funds to meet their bills. Feher attributed these poor results to inefficient management and "unsuitable production structure." During 1961, other regime spokesmen frequently made mention of weak collectives said to account for about 20 percent of the country's 4,546 collective farms. These are the collectives to which the bulk of the state investment and credits and technical assistance are to be directed. According to one expert, raising weak collectives to the level of "average" ones would result in a 7-percent increase in total farm production. However, this concentration might retard production increases in the remaining three-fourths of the collectives.

The 1961-65 plan has been revised. The revision calls for crop production to increase faster than livestock production or just opposite of the original plan. The planned annual increase in agricultural output in 1962 was raised from 5 to 10 percent owing to the shortfalls in 1961. The goal for crop production is a 21-percent increase over 1961. This is based on a planned  $7\frac{1}{2}$  percent increase in area sown to breadgrains, a 17-percent rise in the supply of mineral fertilizers, increased supply of tractors and grain combines, and doubling the area sown to high-yielding foreign wheat varieties.

### Food Situation

The Minister of Food reported shortages of potatoes, rice, vegetables, eggs, and cheese in the winter months of 1961-62. Officials also stated during November and December that the supplies of meat and milk would not be sufficient to meet growing demands. However, distress animal slaughter likely resulted in increased domestic or export meat supplies. An indication of this is the overfulfillment by 44 percent of the meat purchasing plan for the first 6 months of 1962. The value of foodstuffs sold, which account for about half of total retail sales, rose 6 percent in 1961 and sales in the first half of 1962 were 9 percent above the first half of 1961. This was mainly due to increases in the prices of foodstuffs.

### Foreign Trade

Available information points to a decrease in exports of most agricultural commodities in 1961-62. Because of a decline in agricultural exports in



1961, it was not possible to fulfill the targets for exports to nonbloc countries. In 1961, exports of red meat, most of which go to the Western European countries, were down 18 percent; butter 30 percent; rice 77 percent; oil and oilseeds 28 percent. However, exports of poultry meat and eggs increased 35 and 14 percent, respectively.

In 1961, imports of food and food products increased from 8.3 to 10.6 percent of total imports. The increase included a rise of nearly 50 percent in imports of wheat; it also included imports of potatoes and other vegetables to supplement inadequate domestic production. Hungary, which was self-sufficient with respect to corn, imported corn from the Soviet Union in 1961-62. Also there are reports indicating that some feedgrains were purchased from Western European countries.

## RUMANIA

### Production

Agricultural output in Rumania during 1961-62 was about 10 percent below 1960-61. The production of sunflower seed, sugarbeets, and potatoes fell below the levels obtained in the previous 2 years. While wheat production was 9 percent above the previous year, corn production was estimated 9 percent below. Animal husbandry is still far below planned levels of quantity and quality (table 14).

A late summer drought in 1961 affected yields of corn, potatoes, and sugarbeets. Drought damage was not as extensive as in Hungary and Yugoslavia because of excessive moisture in prior months. However, the excessive moisture interfered with fieldwork. The good wheat crop enabled Rumania to shift some food corn to feed. This combined with corn stocks built up in the previous 2 years should have made distress livestock slaughtering unnecessary in the first half of 1962.

### Policy

Over 80 percent of the arable area was in the socialist sector on June 30, 1961, and current government claims run above 90 percent as compared to 35 percent at the beginning of 1958 (table 15). The loss of the traditional scapegoat -- the private farmer -- for agricultural shortfalls has increased the regime's preoccupation with agriculture.

Every sphere of the Ministry of Agriculture was severely criticized by the First Secretary of the Communist Party, Gheorghiu-Dej, on July 1, 1961, at a meeting of the Central Committee of the Communist Party. During the following 10 months, criticism of the Ministry of Agriculture was the order of the day. Finally, the Ministry of Agriculture was abolished, and on April 30, 1962, the Higher Council of Agriculture established. The Higher Council of Agriculture is composed of about 900 members which are appointed by the Council of Ministers from all levels of agricultural production. The ruling body, the Executive Committee of the Higher Council of Agriculture, is composed of 15 to 25 members with the President of the Higher Council serving as President of the Executive Committee. The Higher Council is composed of 7 sections which in

Table 14. -- Farm production in Rumania: Acreage and production of principal crops, number of livestock, and output of animal products, average 1955-57, annual 1958-61

Commodity	1955-57 average			1958			1959			1960			1961		
	Area : Production			Area : Production			Area : Production			Area : Production			Area : Production		
	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
	acres	bushels	acres	bushels	acres	bushels	acres	bushels	acres	bushels	acres	bushels	acres	bushels	bushels
Wheat . . . . .	7,257	111,993	7,346	107,069	7,383	147,009	7,009	126,763	7,337	136,000					
Rye . . . . .	435	6,574	346	4,882	294	5,039	242	4,055	222	4,000					
Barley . . . . .	818	17,637	721	14,008	715	20,622	657	18,601	702	19,600					
Oats . . . . .	887	24,595	769	17,223	741	21,702	667	19,566	602	16,500					
Corn . . . . .	8,695	211,878	9,007	143,969	8,783	223,610	8,826	217,744	8,472	200,000					
		1,000		1,000		1,000		1,000		1,000					1,000
		short tons		short tons		short tons		short tons		short tons					short tons
Potatoes . . . . .	642	3,064	668	3,061	682	3,193	721	3,317	725	2,800					
Sugarbeets . . . . .	341	2,044	349	1,909	498	3,798	493	3,747	425	2,900					
Sunflower seed . . . . .	726	278	870	315	1,268	583	1,186	575	1,086	530					
		1,000		1,000		1,000		1,000		1,000					1,000
		head		head		head		head		head					head
Livestock: <sup>2/</sup>															
Number:															
Cattle . . . . .	---	4,800	---	4,394	---	4,450	---	4,530	---	4,700					
Hogs . . . . .	---	4,950	---	4,008	---	4,300	---	4,300	---	4,670					
Sheep . . . . .	---	11,120	---	10,662	---	11,200	---	11,500	---	12,400					
		Million		Million		Million		Million		Million					Million
		pounds		pounds		pounds		pounds		pounds					pounds
Production: . . . . .															
Meat (carcass															
weight) <sup>1/</sup>	---	840	---	870	---	890	---	950	---	960					
Milk . . . . .	---	3,900	---	4,500	---	4,850	---	5,450	---	5,500					

<sup>1/</sup> USDA estimates for production of crops and meat.

<sup>2/</sup> As of Dec. 31.

Official Rumanian sources.

Table 15.--Rumania: Socialist sector of agriculture, October 1961

Item	Collectives		State farms		Machine-tractor		Total	
	: Percentage:		: Percentage:		: stations		: socialist farms	
	Total : of country:	: total :	Total : of country:	: total :	Total : of country:	: total :	Total : of country:	: total :
Number of farms.....	13,517	Percent	588	Percent	244	Percent	14,349	Percent
	1,000	-----	1,000	-----	1,000	-----	1,000	-----
Workers.....	1/	1/	273	-----	59	-----	1/	1/
Tractors (in terms of 15 h.p.) 2/.....	-----	-----	25.7	39.4	39.6	60.6	65.3	100.0
	1,000	acres	1,000	acres	1,000	acres	1,000	acres
Area:	16,640	69.4	3,338	13.9	-----	-----	19,978	83.3
Arable.....	19,511	54.3	4,300	12.0	-----	-----	23,811	66.3
Agricultural.....	1,000	head	1,000	head	1,000	head	1,000	head
Livestock numbers:	895	19.8	317	7.0	-----	-----	1,212	26.8
Cattle total.....	262	11.7	108	4.8	-----	-----	370	16.5
Cows.....	770	17.9	953	22.2	-----	-----	1,723	40.1
Hogs.....	3,025	26.3	1,349	11.7	-----	-----	4,374	38.0
Sheep.....								

1/ Not available.

2/ Jan. 1, 1961.

Official Rumanian sources.



turn are divided into 13 units. While this streamlined organization will probably elevate the status of agricultural priorities, it has little in the way of resources to deal with the deep-seated economic problems such as overpopulation of the rural sector. The most beneficial aspect of the reorganization probably is that it will bring the planners and the producers closer together. Rumanian agricultural plans have in the past been among the most overly ambitious of the Bloc.

Another significant event was the redistribution of agricultural specialists which began on May 13, 1962. The government hopes to transfer some 3,000 agricultural specialists to production units. Of the country's 15,730 professionally trained agriculturalists, only 47 percent are actually in producing units; many had left agriculture entirely. The principal sources of the additional agricultural specialists on the farm are to be the over-staffed governmental offices, and specialists who had left agriculture.

Another important aspect of the First Secretary's speech on July 1, 1962, was his announcement that the ideal size for collective farms producing cereals was about 5,000 acres rather than the 1960 average of 2,300 acres. He stated that this size would be adopted and thereby unofficially decreed widespread changes in farm organization. To accomplish this a large number of party activists were dispatched to the countryside. The result has been almost complete disappearance of the agricultural association -- the simplest type of collective. They were merged with the more advanced collectives, or two or more associations were consolidated into advanced collectives. Long-term interest free loans and the distribution of machinery, fertilizer, and seed were also used in carrying out this change.

Contrary to the practice of the Soviet Union, Rumania continues to strengthen the positions of the machine-tractor stations. Plans have been announced for the commissioning of six new machine-tractor stations in 1962. The administration of machine-tractor stations, however, has been criticized and the need for closer party control stated. The level of mechanization continues to be the lowest in the Bloc. According to a high government official, no overall attempts to mechanize the collective sector can be made until industry can absorb the population which would be displaced by mechanization.

### Food Situation

Indications are that available food supplies in 1961-62 were substantially below those of the last few years. In the summer of 1961, fruits and vegetables were generally of poor quality, and prices, which are state controlled but fluctuate with availability, were approximately double those of the summer of 1960. Meat, which was freely available at state regulated prices in 1960, was limited to insufficient supplies of low-quality beef in 1961. Egg shortages were temporarily alleviated through imports from Bulgaria. In November 1961, food quality was still low and prices were 25 to 40 percent higher than in the previous winter. Price disparities between regions were even more significant. Food distribution continues to be a major problem. In June and July of 1962 supplies of fruits and vegetables were reportedly uneven and higher priced than in mid-summer 1961.

Indicative of the food shortages in urban areas is the emphasis the party has placed on production specialization by the farms around metropolitan areas. In the month of January alone, these farms were called upon by at least 10 different members of the Central Committee of the Communist Party to concentrate their efforts on the production of meat, milk, eggs, beans, and peas.

### Foreign Trade

Cereal exports, principally corn, in 1961 were 1.3 million short tons, or  $1\frac{1}{2}$  times above the 1958-60 average. Corn exports in the first 5 months of 1962 to the leading West European markets, the United Kingdom, Austria, and West Germany were about 100,000 and 60,000 short tons ahead of 1960 and 1961, respectively. These increased cereal exports were made possible by a buildup in stocks over the past 5 years and a large increase in the production of silage. Net exports of sugar in 1961 were 129,000 short tons, whereas Rumania was a net importer of sugar until 1960. Even though production of fruits and vegetables was down, indications are that exports were about normal resulting in short domestic supplies. Cotton imports, which increased 12 percent for the second consecutive year, amounted to 280,000 bales.

## BULGARIA

### Production

The agricultural sector, which has lagged behind the other branches of Bulgaria's economy, showed a further decline during 1961. As in a number of other East European countries poor weather aggravated the difficulties caused by collectivization. Because of a rainy spring and an extended summer drought, as well as diseases affecting the important tobacco crop, the volume of production was below that of the previous year, which was also poor. Only a few crops -- fruit and some vegetables -- showed improvement. Increases in livestock numbers during 1961 were indicated by preliminary end of year data (table 16). Yet livestock production continues to be the weakest sector in Bulgarian agriculture and lags far behind the increasing needs of the country. Cattle numbers still are below those of prewar, while sheep numbers surpassed the prewar number in 1960 for the first time.

### Policy

Socialization of agriculture is practically completed with over 84 percent of the arable land in Labor Cooperative Agricultural Farms (LCAF) or collectives and 4 percent in state farms (table 17). In late 1958 and 1959, over 3,000 LCAF were consolidated into 972 larger units with an average size of over 8,600 acres. The private plots allowed members of collectives for their personal use account for 8 percent of the arable land. At the end of 1959, about a fourth each of the cattle, hogs, and sheep were on the private holdings. The Government's aim is that eventually the collectives should absorb these plots. Such an attempt was made recently, but the policy was changed when the peasants slaughtered their privately owned livestock. Now, as an incentive for increased private livestock production, the state buys hogs from peasants and makes certain quantities of feed available at favorable prices.

Table 16. -- Farm production in Bulgaria: Acreage and production of principal crops, number of livestock, and output of animal products, average 1955-57, annual 1958-61

Commodity	1955-57 average :			1958			1959			1960			1961		
	Area	Production:	Area	Production:	Area	Production:	Area	Production:	Area	Production:	Area	Production:	Area	Production:	Area
	1,000 acres	Million bushels	1,000 acres	Million bushels	1,000 acres	Million bushels	1,000 acres	Million bushels	1,000 acres	Million bushels	1,000 acres	Million bushels	1,000 acres	Million bushels	1,000 acres
Wheat . . . . .	3,440	63.8	3,546	72.3	3,440	75.7	3,110	73.5	3,212	62.5					
Rye . . . . .	363	5.0	272	3.6	225	3.6	210	2.8	210	2.6					
Barley . . . . .	660	17.1	640	17.3	660	21.8	726	22.8	650	20.0					
Oats . . . . .	390	10.1	410	10.3	447	14.2	447	13.7	423	13.0					
Corn . . . . .	1,888	42.2	1,722	27.8	1,819	47.5	1,853	46.6	1,945	41.5					
Potatoes <sup>1/</sup> . . . . .	74	326	84	277	91	464	106	463	104	441					
Sugarbeets . . . . .	138	1,092	151	972	163	1,598	168	1,786	175	1,711					
Sunflower seed . . . . .	479	240	494	244	583	308	583	378	544	353					
Tobacco, oriental and Virginia . . . . .	227	77	267	91	294	109	225	77	235	83					
Livestock: <sup>2/</sup>															
Numbers:															
Cattle <sup>3/</sup> . . . . .	---	1,524	---	1,356	---	1,284	---	1,450	---	1,580					
Hogs . . . . .	---	1,625	---	2,052	---	2,266	---	2,200	---	2,330					
Sheep . . . . .	---	7,722	---	8,619	---	8,769	---	9,504	---	10,160					
Horses . . . . .	---	454	---	382	---	334	---	4/	---	4/					
Production:															
Meat <sup>5/</sup> . . . . .	---	853	---	1,065	---	1,060	---	902	---	1,030					
Milk . . . . .	---	1,801	---	2,176	---	2,271	---	2,454	---	2,646					

<sup>1/</sup> Production of potatoes includes those grown with other crops; area is that planted only to potatoes. <sup>2/</sup> As of Dec. 31. <sup>3/</sup> Includes buffalo which numbered 174,000 at end of 1959. <sup>4/</sup> Not available. <sup>5/</sup> Live weight.

Official Bulgarian sources and USDA estimates.



Table 17. -- Bulgaria: Socialist sector of agriculture, 1959

Item	Collectives <sup>1/</sup>		State farms <sup>2/</sup>		Total socialist farms <sup>3/</sup>	
	Total	Percentage of :country total:	Total	Percentage of :country total:	Total	Percentage of :country total
	Thousands	Percent	Thousands	Percent	Thousands	Percent
Number of farms . . . . .	972	---	58	---	1,030	---
Member households . . . . .	1,290	---	---	---	1,290	---
Workers . . . . .	1,857	---	4/54	---	1,911	---
Tractors (in terms of 15 h.p.) . . . . .	2.5	7.3	2.1	6.1	5/33.0	95.9
Area:						
Sown . . . . .	1,000		1,000		1,000	
Arable . . . . .	8,585	86.5	407	4.1	8,992	90.6
Total agricultural <sup>6/</sup> . . . . .	8,961	84.2	433	4.1	9,394	88.3
	11,480	82.5	564	4.1	12,044	86.6
Livestock numbers: <sup>7/</sup>						
Cattle . . . . .	872.9	68.0	45.5	3.5	918.4	71.5
Hogs . . . . .	1,376.5	60.7	275.5	12.2	1,652.0	72.9
Sheep . . . . .	5,916.1	67.5	255.5	2.9	6,171.6	70.4
Horses . . . . .	265.1	79.4	12.5	3.7	277.6	83.1

1/ Labor Cooperative Agricultural farms (LCAP). Private plots of members not included. 2/ State farms of the Ministry of Agriculture. 3/ Does not include other state and public farms which occupy about 2 percent of the arable area and 4 percent of total agricultural area. 4/ Total employees of which 48,000 are workers. 5/ Includes 28,400 tractors (15 h.p.) owned by the State's 212 machine-tractor stations that service the farms. 6/ Includes some of the state-owned pastureland. 7/ As of Dec. 31.

Official Bulgarian sources.

New incentives to agriculture, especially livestock raising, were provided by a decree of Feb. 4, 1961, which significantly increased producer prices of meat, poultry, rice, and certain vegetables. Milk prices were increased 3 percent, and eggs 8 percent. Similar incentives were made to tobacco growers in January 1961 and again in February 1962. Price incentives were also given to grape producers in February 1962.

Cash wage payments similar to those paid industrial workers have begun to replace payment-in-kind based on input of "labor days" in some of the collectives. Members of collectives are still paid for their land but the gradual disappearance of rent and total nationalization of the land is the government's ultimate goal.

Early in 1961 a decree improving the pension system of collective farmers was issued. This is intended to check the drift of manpower from the farms to other activities. Another attempt aimed at raising the efficiency and avoiding duplication of farm management is the liquidation of machine-tractor stations, which in 1959 owned over 80 percent of the 34,400 (15 h.p. equivalents) tractors in Bulgaria. The collectives eventually are expected to purchase all machinery from the stations.

With food shortages continuing (and probably inspired by recent Soviet price increase), on July 29, 1962, the government legislated a complex readjustment in its price-tax-pension structure in order to stimulate agriculture.

Prices to collective farms were raised between 5 and 33 percent for milk, eggs, poultry, strawberries, tomatoes, peppers, and onions. Prices charged these farms for construction materials, chemical fertilizers, insecticides, and petroleum products were reduced 25 to 46 percent, bringing them closer in line with those charged state enterprises. A plan was proposed to guarantee a minimum wage to farmers through an insurance fund based on joint state and farm contributions. Costs to the state for these changes are to be partially defrayed by raising consumer prices of livestock products, with meat up about 25 percent. These burdens will be mitigated for workers and employees with low incomes and many children by tax reductions and higher tax exemptions and increased allowances for children. The aged and disabled will obtain relief by assorted pension increases. The announcement of the decree justified the necessity of putting the onus on workers and promised a return to a policy of lower prices.

### Food Situation

Shortages were reported since the latter part of 1961 in a number of foods, including flour and bread. While per capita consumption of total grain has decreased compared to that of prewar, consumption of wheat, always the principal bread grain, has increased in recent years. Corn consumption for food has decreased. Per capita consumption of fats, though still below the West European average, is usually above the prewar level, reflecting increases in both vegetable oil and pork fat. Sugar consumption, also considerably below the West European average, has tripled compared to prewar intake. Meat consumption has not yet equaled that of prewar.

## Foreign Trade

Bulgaria always has been a net exporter of agricultural products but with postwar industrial expansion the share of farm products in total value of exports had fallen to approximately 41 percent in 1960, compared to 95 percent before the war. Value of agricultural imports in 1960 accounted for about one-tenth of total imports.

The Communist countries, including Yugoslavia, are Bulgaria's principal trading partners accounting for approximately three-quarters of the agricultural trade by value. The Soviet Union is the most important source for agricultural imports and is also the chief recipient of Bulgarian exports although East Germany and Czechoslovakia are also large markets. Among the free world countries West Germany buys the largest amount of Bulgarian agricultural goods, and Egypt sells the most, supplying 15 percent of the raw cotton imports. U.S.-Bulgarian trade is small but rose sharply in 1960. The principal commodities imported from Bulgaria were sunflower seed, paprika, dried onions, cheese, and rose oil. The U.S. exported only some seeds.

Bulgaria exports a great variety of agricultural goods, especially fruits and vegetables. The items with the largest value in 1960 were tobacco, fresh tomatoes, grapes, sunflower seed, eggs, and corn. Agricultural imports are much less diversified; cotton is by far the largest item with wheat, wool, pork, beef, and sugar in descending order of value.

Exports of tobacco rose in the years 1958-1960, but the value of the larger exports declined slightly in 1960. Almost 70 percent of these exports went to Communist countries. Fresh tomato exports have increased sharply and 93 percent of them were taken by the Communist countries. Eggs and sunflower seed are important and expanding export items, primarily shipped to free world countries. Wheat and corn are both exported and imported, with net imports of wheat and usually net exports of corn, except for 1959. In 1960, wheat imports, coming almost entirely from the USSR, totaled 2,783,000 bushels and exports 537,000 bushels mostly for Yugoslavia and Albania. Exports of pork declined from 41.4 million pounds in 1958 to 31.2 million pounds in 1960. In 1960 for the first time imports of pork and beef primarily from the USSR totaled 1.7 million pounds. Cotton imports in 1960 rose 20 percent by volume and 35 percent by value. More than half of the cotton came from the USSR and 70 percent from the Communist bloc as a whole.

### YUGOSLAVIA

#### Production

Agricultural output in Yugoslavia during 1961-62 was about 10 percent below that of 1960-61 and approximately 20 percent below the record level of 1959-60. Early spring drought and a prolonged drought from July to October affected most crops. Corn and tobacco, two important crops, were especially hard hit. Corn output was down 35 percent and the tobacco crop, which was also damaged by blue mold, was about half that of 1960. Wheat production was 11 percent less than 1960, but above the 1955-58 average. Decreased sugarbeet



production caused sugar output to drop 19 percent below 1960-61. While the fruit crops were also affected by the drought, production was considerably higher than the low 1960 output, except for grapes. The quality of the dried prunes from the harvest of 1961 was reportedly the best since World War II, and the quantity available for export was almost 3 times that exported from the 1960 crop.

The rate of increase in cattle numbers fell sharply in 1961. Hog numbers dropped 11 percent below 1960 and were the lowest since 1957 (table 18). Fodder shortages led to increased slaughter, especially in the private sector. The socialist farms, which own less than 10 percent of the livestock, were granted low-cost credits to hold their livestock and purchase from the private farmers in order to discourage distress slaughter.

## Policy

Although socialization of agriculture has continued to be the ideological objective of the Yugoslav Communist regime, forced collectivization was discarded in 1951. Most of the collective farms were disbanded by the end of 1953. The socialist sector accounts for only 11 percent of the arable area with the rest farmed by small peasant farmers (table 19).

The immediate aim of the Yugoslav government is to increase agricultural production, in order both to free the country from dependence on foreign aid and to meet the country's growing requirements. To encourage production the government has increased the average level of purchase prices for farm produce 34.5 percent above 1960. The increase is to be effective through 1964.

Premiums and subsidies are also used as inducements to stimulate production. However, they are directly available only to the small socialized sector of agriculture. The private farmer benefits only by cooperation with the socialized sector, principally through the General Agricultural Cooperatives (GAC). Through them he may obtain services of agricultural machinery at a fee, or purchase such items as seed, fertilizer, feed, insecticides, good-quality livestock, and machinery for cash or credit. Members of the cooperatives pay less than nonmembers, but all private farmers are almost completely dependent upon the GAC for the above supplies. The cooperatives have become the economic centers of the communities in which they operate.

Premium prices for fodder have been introduced while rebates covering the difference between domestic and import prices are being granted to those enterprises which import livestock feed. At the same time premiums on fattened cattle have been doubled to encourage the continued production of exportable livestock and meat. Subsidies on domestic and imported breeding stock, fertilizers, and pesticides, as well as agricultural machinery, oils, and lubricants necessary to agriculture, have existed since the early 1950's. While the amount of the discount for the purchase of input items has been decreasing since 1955, it is still significant. Currently the subsidy is about 30 percent for fertilizers, 15 to 25 percent for machinery, and 25 percent for fuel.

Table 18. -- Farm production in Yugoslavia: Acreage and production of principal crops, number of livestock, and output of animal products, average 1955-57, annual 1958-61

Commodity	1955-57 average :			1958 :			1959 :			1960 :			1961/ :		
	Area :	Production:	Area :	Production:	Area :	Production:	Area :	Production:	Area :	Production:	Area :	Production:	Area :	Production:	Area :
	1,000 acres	Million bushels	1,000 acres	Million bushels	1,000 acres	Million bushels	1,000 acres	Million bushels	1,000 acres	Million bushels	1,000 acres	Million bushels	1,000 acres	Million bushels	1,000 acres
Wheat . . . . .	4,517	87.2	4,917	90.0	5,263	151.7	5,090	131.2	4,843	116.5					
Rye . . . . .	647	9.8	613	9.5	583	10.4	526	9.2	445	7.5					
Barley . . . . .	904	20.5	964	21.6	934	26.4	897	24.3	815	18.4					
Oats . . . . .	902	24.9	857	17.8	835	27.8	825	25.7	741	25.5					
Corn . . . . .	6,279	169.5	5,906	155.5	6,375	262.6	6,350	242.5	6,326	157.5					
		1,000 short tons		1,000 short tons		1,000 short tons		1,000 short tons		1,000 short tons					
Potatoes <sup>2/</sup> . . . . .	670	2,852	684	2,888	717	3,042	712	3,605	692	3,086					
Sugarbeets . . . . .	183	1,667	175	1,631	200	2,668	193	2,524	190	2,205					
Sunflower seed . . . . .	213	93	183	88	213	126	183	108	185	82					
Tobacco . . . . .	114	51	131	43	121	51	96	34	67	18					
		Thousands		Thousands		Thousands		Thousands		Thousands					
Livestock: <sup>3/</sup>															
Numbers:															
Cattle . . . . .	---	5,004	---	5,038	---	5,295	---	5,709	---	5,870					
Hogs . . . . .	---	4,195	---	5,657	---	6,208	---	5,804	---	5,153					
Sheep . . . . .	---	10,868	---	11,249	---	11,460	---	10,842	---	11,085					
Horses . . . . .	---	1,299	---	1,274	---	1,272	---	1,220	---	1,222					
		Million pounds		Million pounds		Million pounds		Million pounds		Million pounds					
Production:															
Meat (carcass weight) . . . . .	---	988	---	1,034	---	1,197	---	1,327	---	1,410					
Milk . . . . .	---	4,711	---	5,346	---	5,591	---	5,551	---	5,509					

<sup>1/</sup> Preliminary. Official statistics and USDA estimates. <sup>2/</sup> Production of potatoes includes those grown with other crops; area is that planted only to potatoes. <sup>3/</sup> Number of livestock as of Jan. 15 of the year following that indicated.  
Official Yugoslav sources.

Table 19. -- Yugoslavia: Socialist sector of agriculture, 1960

Item	Collectives		State farms		General agricul- tural cooperatives:		Other <sup>1/</sup>		Total socialist farms	
	: : : : : :		: : : : : :		: : : : : :		: : : : : :		: : : : : :	
	:Percentage: Total :of country: : total :		:Percentage: Total :of country: : total :		:Percentage: Total :of country: : total :		:Percentage: Total :of country: : total :		:Percentage: Total :of country: : total :	
Number of farms . . .	Percent	456	Percent	2/4,067	Percent	436	Percent	5,109	Percent	---
	---		---		---		---		---	
Households . . . . .	Thou- sands	Thou- sands	Thou- sands	Thou- sands	Thou- sands	Thou- sands	Thou- sands	Thou- sands	Thou- sands	Thou- sands
Workers . . . . .	3/19	93	111	111	111	11	4/234	4/234	4/234	4/234
Tractors . . . . .	2.5	11.0	32.6	16.4	48.7	.8	30.7	30.7	30.7	91.1
Area:										
Arable . . . . .	1,000	1,000	5.2	1,000	4.0	1,000	1,000	1,000	1,000	11.0
Total agricultural : : : : : : : : : : : : : : :	acres	acres	4.1	acres	4.0	acres	acres	acres	acres	9.4
	282	998		751		55	2,086	2,086	2,086	
	314	1,502		1,490		171	3,477	3,477	3,477	
Livestock numbers										
(Dec. 31):										
Cattle . . . . .	1,000	1,000	5.4	1,000	2.2	1,000	1,000	1,000	1,000	9.0
Hogs . . . . .	63	305	1.1	128	2.9	17	513	513	513	10.8
Sheep . . . . .	105	339	1.8	169	2.1	14	627	627	627	4.5
Horses . . . . .	36	211	.3	226	.5	12	485	485	485	1.7
	3	10	.2	6		2	21	21	21	

1/ Includes farms of agricultural institutions and schools and other public farms.

2/ This includes the cooperatives without land. In 1959, 1,497 of 4,817 cooperatives were without land.

3/ Not available. In 1955, 48,000 households were included in 704 collective farms which comprised about 575,000 acres of all land in collective farms.

4/ Total permanent workers and employees, of which 187,000 were permanent workers.

Official Yugoslav sources.



Private farmers have been guaranteed a basic price for the 1962 wheat crop of 38 dinars per kilogram, an increase of 5 dinars over the 1961 guarantee.<sup>14/</sup> However, private producers who contract production with a cooperative will receive 42 dinars per kilogram, or 7 dinars more than in 1961. Because of a premium of 11 dinars compared to 3 dinars per kilogram last year, socialist enterprises will receive 44 dinars per kilogram.

Private ownership of land is limited to 25 acres. Private farms comprise 89 percent of the arable land and average less than 12 acres in size. If the farmer doesn't operate his holding in accordance with approved regional practices, the land can be taken on a lease basis by the government. It is illegal for private farmers to buy tractors, however, a few have been obtained via the junkyards. In 1960, the socialized sector of agriculture owned 31,000 of the of the 34,000 tractors in Yugoslavia (table 19). At the end of 1961, the socialized sector had 35,000 tractors and the number is expected to increase another 6,000 during 1962.

The Yugoslav method of increasing the area in the socialist sector is for the socialist enterprises (state and collective farms) to purchase private land and increase participation of peasants in cooperatives. Agricultural officials have repeatedly stated that the socialist sector must have another 2.5 million acres, principally in the wheat growing region, to insure domestic consumption needs for bread grains. The policies, designed to encourage either the sale of land or participation in cooperatives, have so far produced only modest results. Between 1955 and 1960, socialist enterprises bought only 202,622 acres from the private peasants, or about 1 percent of arable area in private farms. However, in 1961 more land was reportedly offered than bought because of insufficient funds allocated for this purpose. Collaboration between cooperatives and private holdings has stagnated in the last 3 years at a level of about 20 to 25 percent of total private holdings. Government officials have indicated that action will be taken to increase the size of the socialist sector and the degree of collaboration between cooperatives and private peasants. The primary target appears to be part-time farmers who reportedly hold 35 percent of total arable area.

Yugoslavia abandoned its system of multiple exchange rates Mar. 16, 1961, and introduced a single rate equivalent to 750 dinars to the U.S. dollar which is applicable to all imports and exports. While this measure was designed to liberalize trade, there have been some complications.

### Food Situation

Average daily consumption per person, estimated at about 2,900 calories, is about 8 percent above the prewar level. The proportion derived from grains, while decreasing, still makes up about three-fifths of the total. Per capita consumption of wheat, which has replaced corn as the principal bread grain, has steadily increased. Sugar and fat consumption, still low, also has shown continued increases. Despite increased production of meat, the per capita

<sup>14/</sup> At the official rate of 750 dinars per U.S. dollar, the producers price of wheat would be \$1.36 per bushel.

intake has grown at a much slower pace, because of the increase in exports. Yugoslavia's food supply has been considerably bolstered by imports, particularly from the United States.

## Foreign Trade

Agricultural imports exceeded exports 8 percent in 1961, because exports remained steady while imports jumped 32 percent above 1960. This has been the general pattern since World War II. However, a large porportion of Yugoslav agricultural imports consisted of U.S. shipments under Title I of P.L. 480. Imports under this program, which were financed by dinars and largely remained in Yugoslavia, accounted for about half of the 1961 agricultural imports compared to about one-fourth in 1960. Because of this a surplus of foreign exchange in fact resulted from the Yugoslav agricultural trade in 1961.

Yugoslavia imports agricultural products chiefly from the United States, Australia, Malaya (rubber), and Poland. Imports from the United States consist principally of surplus commodities supplied through Title I of the Agricultural Trade Development and Assistance Act (P.L. 480). The quantity and value of the shipments of U.S. surplus commodities during 1955-61 were as follows:

Commodity	:	Unit	:	Quantity	:	Value
	:		:		:	1,000 dollars
Wheat.....	:	1,000 bushels	:	153,315	:	258,767
Cotton.....	:	1,000 bales	:	656	:	90,744
Soybean oil.....	:	1,000 pounds	:	328,813	:	40,763
Cottonseed oil.....	:	do.	:	9,867	:	1,445
Lard.....	:	do.	:	139,994	:	19,893
Tallow.....	:	do.	:	33,303	:	2,851
Nonfat dry milk.....	:	do.	:	5,442	:	500
Fruits and juices.....	:	do.	:	15,973	:	1,540
Dried beans.....	:	do.	:	22,178	:	1,795
Total.....	:		:	---	:	418,298

Shipmemts of agricultural commodities for emergency relief and foreign donations (Titles II and III of P.L. 480) amounted to \$135 million during 1955-61. However, 75 percent of these donations were prior to 1959. Also, under Title III, barter trade amounted to \$16 million.

P.L. 480 shipments (Title I) amounted to almost \$58 million in 1961, half of which was wheat (18.4 million bushels). Early in 1961, Yugoslavia also purchased 7.3 million bushels of wheat commercially from the United States. In December 1961, an agreement was signed under Title I, P.L. 480 for the shipment again in 1962 of 18.4 million bushels of wheat and 66 million pounds of cottonseed or soybean oil. A Title IV P.L. 480 program with Yugoslavia was agreed upon in the spring of 1962 resulting in the sale of 100,000 bales of cotton and 36,000 short tons of soybean meal to be paid for in dollars over 15 years.

The structure of Yugoslavia's imports changed somewhat as wheat, which was down in 1960, regained its position as the leading 1961 farm import, accounting for one-third of the total. While 1961 wheat imports were about 25 million bushels above 1960, they were still below the amount imported in 1959. Cotton, which accounted for one-fourth of the 1961 agricultural imports, increased 60,000 bales. The United States replaced Egypt as the principal supplier of cotton in 1961, supplying two-thirds of the total imports. Imports from Greece also increased significantly while Egyptian imports fell to one-fifth of their 1960 level. Imports of vegetable oils and seeds were mostly from the United States.

Yugoslavia's principal agricultural exports are meat and meat products, live cattle, corn, and tobacco. Meat and meat products went chiefly to the United Kingdom, Italy, and Czechoslovakia, tobacco to France, Poland, and the United States. Corn exports, banned late in 1961 because of fodder shortage and consequently down 7 percent that year, went principally to Austria and Italy. Other important exports were fruit and fruit preparations--particularly dried prunes--eggs, and hops, which were chiefly marketed in West Europe.



Growth Through Agricultural Progress





